THE

PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

On Tuesday, September 10th, Lieutenant Kitchener formally handed over to the Committee the whole of the maps and memoirs complete. His final report, read to the Committee at the time, will be found further on (p. 174). The work thus completed consists, first, of twenty sheets, each with its memoir, prepared by Lieutenant Conder, and, secondly, of six, each with its memoir, prepared by Lieutenant Kitchener. There are also the special plans, surveys and drawings, made by both officers; there are the pen-and-ink sketches and water-colour drawings made by Lieutenant Conder, and Lieutenant Kitchener's photographs. In addition to all this there are the three sheets of the smaller map prepared by Lieutenant Kitchener, according to the instructions of the Committee.

On Tuesday, September 19th, Lieutenant Kitchener started for Cyprus to commence the survey of the island, to the command of which he has been appointed by the Foreign Office.

The Committee, at their meeting of September 10th, passed the following resolution: "That the Committee desire to express their grateful thanks to Lieutenant Kitchener for the way in which he brought the Survey of Western Palestine to a successful termination, and congratulate him on his appointment to the very important work of a similar nature which has been entrusted to him by the Secretary of State for Foreign Affairs."

The *Quarterly Statement* for 1878, therefore, closes with the completion of the Survey of Western Palestine, the history of which was commenced in the *Quarterly Statement* of January, 1872. The Survey has taken seven years to complete. The sheets of the map have been placed in the hands of the most competent judges, and are stated to be in every respect equal to the best work possible in map-making. The year 1879 will be the year of publishing. It is proposed that the regular subscriptions should be devoted to this purpose. It is needless to explain that a large part of the scientific memoirs and special plans, which must be published, can hardly be expected to pay the expenses of publication. Probably

in the January *Quarterly Statement* we may be prepared with a prospectus of time, price, &c.

In Lieutenant Conder's book, "Tent Work in Palestine," an opportunity has been afforded of turning over the leaves, so to speak, of the memoirs. The book, though published in a bad season, and not at the best time of the year, has done very well. It is satisfactory to record that the general opinion of the press has been very favourable, and that its sale has already justified the Committee in their confidence in the author.

The sale has, in fact, left, at the present moment, little more than a hundred copies in the hands of the publishers. Those subscribers who want to have the earliest and library edition should therefore send their names to the office without any delay.

By an oversight in the July *Quarterly Statement*, the editor omitted to mention that the illustration, "Jewish Synagogue at Sufsaf," was supplied by the kindness of the editor of the *Builder*, where it first appeared.

On p. 176 will be found the prospectus of the proposed expedition to Galilee. This has been already sent to the General Committee, and circulated privately to a limited extent. A first list of subscribers has been obtained, and is here published. The amounts are in some cases promised, in others already paid. The prospectus itself has been printed in large numbers, and copies can be had on application to the Secretary. It is illustrated with a wood-cut of Tel Hum, the proposed principal site for excavation.

Marquis of Bute	£50	0	0
Samuel Morley, Esq., M.P.	50	0	0
Lord Clermont	25	0	0
John Edward Wilson, Esq.	25	0	0
W. Hepworth Dixon, Esq.	10	10	0
John MacGregor, Esq.	10	0	0
Lord Talbot de Malahide	5	0	0
Rev. Canon Lightfoot	5	0	0
W. M'Arthur, Esq., M.P.	5	5	0
W. Atkinson, Esq.	5	0	0
J. Braithwaite, Esq.	5	0	0
Fritz Reiss, Esq.	5	0	0
Right Hon. Stephen Cave, M.P.	2	2	0
Rev. F. W. Holland	2	2	0
Rev. W. F. Birch	2	2	0
F. L. Hausberg, Esq.	2	0	0
Miss Erskine	2	0	0
Rev. Dr. Ginsburg	2	0	0
Miss Mends	0	10	0
Per Hon. Sec. for Chelmsford	2	5	0

The list will remain open. Subscribers can, if they please, devote their amounts, or any portion of them, to this special fund.

The small map of Galilee which forms the frontispiece to this number and illustrates the prospectus of page 176 shows the country which will be the field of operations of the new expedition. The western side of the lake has been already surveyed by Lieutenant Kitchener. The eastern side is almost unknown. The map itself is a portion of the reduced map on the three-eighths scale, the hill shading being omitted.

This is the first specimen of the reduced map published. It is noteworthy that it contains about five times as many names as any other existing map of this portion of the country, and this, although one half the map belongs to the unsurveyed part of Palestine.

At the meeting of the British Association in August three papers of interest to readers of this Journal were read: one by Lieutenant Kitchener, on the Survey of Galilee; one by the Rev. F. W. Holland, on his recent journey to Sinai; and one by Captain Burton, on his last expedition to Midian. We reproduce the first (p. 159), and hope, when the others are published, to present extracts from them.

We have to regret the death of the Rev. Samuel Martin, a member of the General Committee from the foundation of the Society, and of General Cameron, R.E., the Director of the Ordnance Survey at Southampton. General Cameron had only just joined the General Committee, but had on various occasions shown his appreciation of the work and rendered great help to the Committee.

The death of that great geographer, Herr Petermann, also a member of this Committee, is announced at the moment of going to press. His contributions to Biblical geography deserve a special notice, which we hope to give next quarter.

The income of the Fund from all sources, from June 27th to September 19th, 1878, was £814 5s. 4d. The expenditure was as follows:—Exploration, £219 13s. 6d.; office expenses, £172 14s. 11d.; bills, £68 1s. 6d.

It has been asked whether, since the Survey is finished, the *Quarterly Statement* will be discontinued. The completion of the Survey does not mean the completion of the work of the Society, as reference to the original prospectus will show at once. And there is, more than ever, need of a periodical devoted to the special line of research which is the *raison d'être* of this *Quarterly Statement*. It will therefore be continued as long as the Society exists and there is work of the kind which it represents to be done and reported.

The first number of the Journal of the new German Association has been received. A summary of its contents will be found on page 201. We shall receive and exchange the numbers regularly, and propose to transfer to our own columns, with due acknowledgment, whatever new intelligence and matter of interest the Journal may contain. Under the vigorous management of the Executive Committee elected to carry on the Association it ought to prove successful.

Several cases have been at various times discovered of postage-stamps being lost on their way to the office. The only way to avoid such loss is to send money by P.O.O. or by cheque, *in every case payable to the order of Walter Besant, Esq., and crossed to Coutts and Co., or the Union Bank, Charing Cross Branch.*

The ninth thousand of "Our Work in Palestine" is now ready (price 3s. 6d.), and may be ordered of booksellers. This book carries the work down to the commencement of the Survey, but does not embrace M. Ganneau's discoveries nor the results of the Survey itself.

The following are at present Representatives and Lecturers of the Society, in addition to the local Hon. Secs. :—

Archdeaconry of Hereford: Rev. J. S. Stooke-Vaughan, Wellington Heath Vicarage, Ledbury.

City and neighbourhood of Manchester: Rev. W. F. Birch, St. Saviour's Rectory.

Lancashire: Rev. John Bone, St. Thomas's Vicarage, Lancaster.

London: Rev. Henry Geary, 16, Somerset Street, Portman Square; and Mr. C. Stuart Lockhart (address at the office).

Norwich: Rev. W. F. Creeny.

Suffolk: Rev. F. C. Long, Stow-upland, Stowmarket.

Peterborough: Rev. A. J. Foster, Farndish Rectory, Wellingborough.

Worcester: Rev. F. W. Holland, Evesham (Member of General and Executive Committee, and one of the Hon. Secretaries to the Fund).

Gloucester and Bristol: Mr. John Brion (address at the office).

Diocese of Ripon: Rev. T. C. Henley, Kirkby Malham Vicarage.

North Wales: Rev. John Jones, Treborth, Bangor.

Yorkshire, Durham, and the North: Rev. James King, 13, Paradise Terrace, Darlington. Mr. King has recently returned from the Holy Land; communications for lectures, &c., can be sent to the Office at Charing Cross.

IRELAND.—Rev. G. J. Stokes, Blackrock, Dublin.

SCOTLAND.—Rev. R. J. Craig, Dalgetty, Burntisland.

The Rev. Horrocks Cocks, 19, Edwardes Square, Kensington, has also kindly offered his services among the Nonconformist churches.

While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund, the Committee beg it to be distinctly understood that they leave such proposals to be discussed on their own merits, and that by publishing them in the *Quarterly Statement* the Committee do not sanction or adopt them.

Annual subscribers are earnestly requested to forward their subscriptions for the current year when due, at their *earliest convenience*, and without waiting for application.

The Committee are always glad to receive old numbers of the *Quarterly Statement*, especially those which have been advertised as out of print.

Attention is called to the statement already advertised, that subscribers to the Fund are privileged by the publishers to receive both the "Literary Remains of the late Mr. C. F. Tyrwhitt Drake," and the "Underground Jerusalem" of Captain Warren, at reduced rates. The former book will be sent for ten shillings, the latter for sixteen shillings, postage paid. But letters asking for them must be sent to the office at 11 and 12, Charing Cross only.

Cases for binding the *Quarterly Statement* are now ready, and can be had on application to Messrs. R. Bentley and Son, 8, New Burlington Street. They are in green or brown cloth, with the stamp of the Society, uniform in appearance with "Our Work in Palestine," and are sold at the price of eighteenpence.

Lieut. Kitchener's Guinea Book of Biblical Photographs can be bought at Mr. Stanford's establishment, 55, Charing Cross. It contains twelve views, with a short account of each. They are mounted on tinted boards, and handsomely bound.

SURVEY OF GALILEE.

A Paper read before the Geographical Section of the British Association by LIEUT. H. H. KITCHENER, R.E., F.R.G.S.

LADIES AND GENTLEMEN,—I appear before you to-day as the representative of the Palestine Exploration Fund, an association which, as many of you are aware, was formed several years ago under the patronage of Her Majesty, and of many great functionaries in Church and State, for the purpose of exploring the Holy Land. The great work on which the Society has been occupied for the last seven years is a map of Palestine on the model of the Ordnance Survey of England and Ireland.

This map of Palestine from Dan to Beersheba on the 1-inch scale has now been completed, and will shortly be published. It was commenced by the Palestine Exploration Fund sending out Major Stewart, R.E., and a party of noncommissioned officers at the end of 1871. Major Stewart was invalided home after a very short period of service, during which he had, however, established a base line on the plain near Ramleh; this base line was over four miles long, and was calculated with considerable accuracy. Mr. Tyrwhitt Drake had then charge of the party until the arrival of Lieutenant Conder, in July, 1872. The work then proceeded regularly, the triangulation being carried southwards to the hill country, and then north as far as the plain of Esdraelon, on which another base line was measured. The calculations and measurements of this check base agreed most satisfactorily, and proved the accuracy of the whole triangulation. In November, 1874, I joined the party, and after a year's work in the plain of Philistia, when commencing the survey of Galilee,

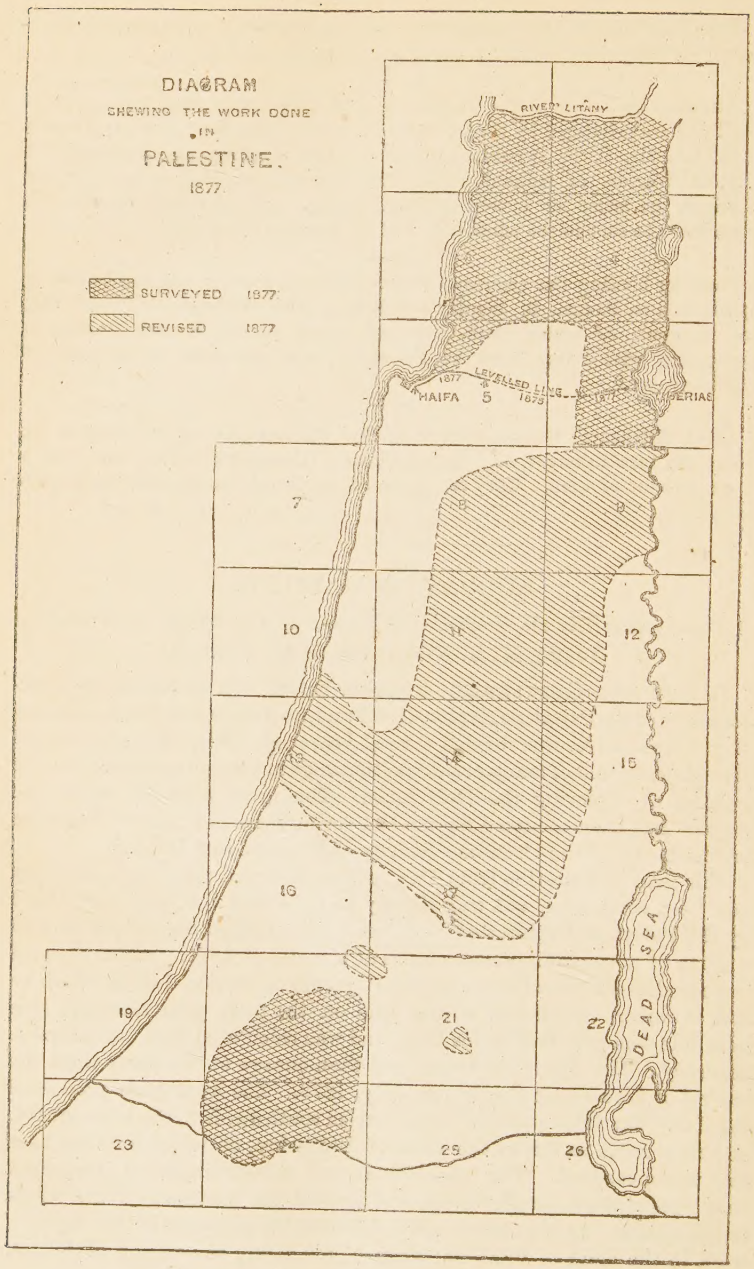


DIAGRAM
SHEWING THE WORK DONE
IN
PALESTINE.
1877
SURVEYED 1877
REVISED 1877
RIVER LITANY
1877 LEVELLED LINE 1878
HAIFA
5
7
10
11
12
15
16
17
19
21
22
23
25
26
DEAD SEA

we were met at Safed with a fanatical attack from the natives. As after this we all suffered severely from fever, and cholera was spreading rapidly all over the country, the party was withdrawn. After eighteen months of plotting and fair-drawing the work we had done, Lieutenant Conder's health not allowing him to return to the country, I was entrusted with the command of an expedition to finish the Survey of Galilee. My party consisted of three noncommissioned officers of the Royal Engineers, appointed from the Ordnance Survey. I left in January, 1877, and by the end of February my men had joined me at Haifa, and everything was ready for an active campaign.

On the 27th of February work was commenced. The survey of the Plain of Acre occupied one noncommissioned officer, while the other two and myself were employed in taking up the line of levels between the Mediterranean and the Sea of Galilee, for which a special grant had been received from this Association. After discovering our former bench mark at Mejdel the levelling went on swimmingly, almost too much so while crossing the swampy plain and the Kishon swollen by the winter rains. A paper on the successful completion of this line of levels was read by Major Wilson at the last meeting of this Association.

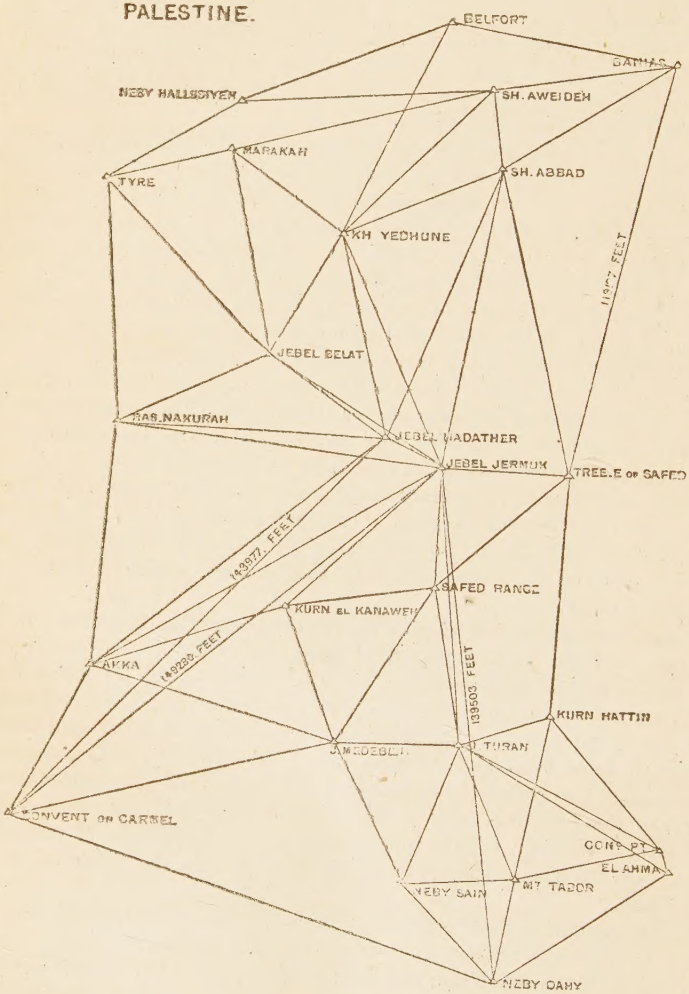
The weather was hardly settled at this time; storms of wind and rain made our tents no very pleasant abode. On the 8th of March the levelling and surveying were completed, and we marched across the country to Hattin, breaking the journey for one night at Nazareth.

Hattin is a village of some importance, well situated for our work. The natives proved civil and obliging. Our camp consisted of five Egyptian tents, seven little Arab horses, seven mules, four Europeans, ten natives, and two bashi-bazouks with their horses, attached to us by the Government.

From this camp we had to pick up the old triangulation-points which had been left on the withdrawal of the party in 1875. The cairns we had built were all destroyed, but after a careful search we found the broad arrows cut on the rock under where the cairns had been, and were thus able to carry on the triangulation from a base of 25 miles, and other calculated lines from 8 to 12 miles long; subsequently, after carrying the triangulation round the country, as will be described, the calculated length of this base was only 60 feet different from the measurement we had started with, or a little more than 2 feet in the mile of possible error. On our scale, this error in 25 miles is only the thickness of a pencil line.

The triangulation took eight days from this camp, as the old cairns had to be rebuilt, and new ones erected in the northern country. By thus doing the triangulation and survey of the ground from each camp, we were able to keep both going together; and the strength of my party was not sufficient to adopt any other method. While observing from the top of Mount Tabor I examined three chapels recently unearthed by the Roman Catholic monks; they date from Crusading times, when this was supposed to be the Mount of the Transfiguration, and the three

DIAGRAM
OF TRIANGULATION
OF
NORTHERN PORTION.
OF SURVEY OF
PALESTINE.



chapels are mentioned in old chronicles of that time. The massive fortifications on the top of the mount, enclosing these later remains, were probably those erected here by Josephus in order to resist the Roman armies under Vespasian; they consist of a solid wall built of large drafted stones, flanked at intervals by square towers enclosing a large rectangular space that occupied the whole of the top of the hill.

Looking down on the broad plain of Esdraelon stretched out from our feet, it is impossible not to remember that this is the greatest battle-field of the world, from the days of Joshua and the defeat of the mighty host of Sisera, till, almost in our own days, Napoleon the Great fought the battle of Mount Tabor; and here also is the ancient Megiddo, where the last great battle of Armageddon is to be fought.

The country surrounding our camp was formed of decomposed basalt and the ashes and *débris* thrown from the volcanoes that once occupied this region; in some places the black basalt rock crops out, but the general colour of the ground is a deep red. Immediately above our camp was one of these extinct volcanoes; it is called the Kurn Hattin, or Horns of Hattin, being two peaks on the top of a steep mountain, having between them the crater of an extinct volcano; it will ever be remembered as the scene of the final struggle of the Crusaders after the fatal battle on the plain below. On the top was the king surrounded by his nobles, with the chiefs of the great Orders of the Templars and the Hospitallers, hemmed in on all sides by the seething masses of the Saracen host under Saladin. Thrice the heights were stormed and thrice the besiegers were driven back with immense slaughter, till at last, worn out by thirst, fatigue, and the hopeless task of holding out against such odds, the brave remnant surrendered and the Christian power in the country ceased to exist. Curiously enough, we found the plain just below still retains a reminiscence of this scene; it is called the Plain of Burnus, the Arabic designation of Count Rainaud of Chatillon, Seigneur of Kerak, who had caused the war by plundering a convoy of Moslem pilgrims, among whom was the mother of Saladin; he was killed immediately after the battle by the hand of Saladin himself.

During our triangulation we found some little difficulty from the natives, who thought we were magicians, with power to find hidden treasure under the ground, and that our cairns were marks to remember the places by. It was an unfortunate idea, as the result was that in the night time our cairns often disappeared, and the natives groped through any earth to the rock below, hoping to forestall us. After making the offenders rebuild the cairns on one or two occasions these annoyances ceased.

On the completion of the triangulation, the levelling had to be taken up from the last point on the line. The bench mark was found without difficulty. It was most fatiguing work dragging the levelling staves and heavy instruments over the rough country, and when the descent below the sea-level, in a steep narrow gorge, was attained, it was extremely trying; however, in seven days' work, 16¼ miles were

accomplished and the seashore was reached, giving a depression of 682 feet 6 inches below the Mediterranean.

The survey of the detail had then to be done. Our process was very well suited to this open and barren country. From the fixed triangulation-points a number of supplementary angles were taken to every village, hill-top, prominent tree, or important object in view; as this was done from every point when these lines were plotted, we had intersections fixing these objects. Practically almost every place of importance was fixed in this way.

The surveyor then started with this diagram of fixed points, and by the interpolation of the angles taken with his prismatic compass was able to fix his own position at any point on paper; he then sketched in by eye the detail that was in his close vicinity, and by going through the same process all over his work the detail was obtained with considerable accuracy. The heights of all places of importance were taken by aneroids, besides the calculated heights of all the triangulation points. These aneroids were checked morning and evening with a standard barometer kept in camp. The slopes of the hills were taken by Abney's level, and on returning to camp in the evening a report was made of all ruins, villages, and water-supply in the work of the day. The nomenclature was written down in Arabic by a well-educated scribe kept for that purpose. Each surveyor had a guide with him, who gave the names of the different places. The surveyor wrote them down as near as he could to the sound, and on returning to camp he repeated them in front of the guide and the scribe. The guide then pronounced the names correctly, and the scribe wrote it down from him. I afterwards transliterated the Arabic in accordance with Robinson's method, and the proper spelling was thus obtained and written on the map.

Every possible check on the veracity of the natives was employed by asking numbers of people independently the names.

Dishonest guides were dismissed, and as these people are peculiarly susceptible of sarcasm, the offenders were not happy when they were laughed out of camp for not knowing their own country as well as we knew it.

One of the great values of the map is the number of unknown names it has made public; thus on this part of the survey 2,770 names were collected, only about 450 of which are to be found on the best existing map of the country.

Another is the accuracy of these names, taken down from the natives in a manner never attempted before, and the result has been to throw a vast light on the ancient nomenclature of the country and the origin of the races that inhabit it.

The survey of the detail took five more days, and on the 27th March we were able to move camp to Tiberias, with the assurance of having no obstacle of a technical nature to hinder our work. Our camp was pitched along the shores of the sea, and as the Governor had already received a reprimand from the Pasha of Acre for not answering a letter of mine, we were well received by the officials.

The scenery of the lake is decidedly monotonous, but there is a great charm in that dry and thirsty land in having a vast expanse of fresh water spread out before the eyes, and at night the effect of the moon in Eastern brightness shining on the calm lake was exceedingly beautiful. During the survey of the shores we made one considerable discovery: the site of Sennabris, mentioned by Josephus as the place where Vespasian pitched his camp when marching on the insurgents of Tiberias. The name Sinn en Nabra still exists, and is well known to the natives; it applies to a ruin situated on a spur from the hills that close the southern end of the Sea of Galilee; it formed, therefore, the defence against an invader from the Jordan plain, and blocked the great main road in the valley.

Close beside it there is a large artificially-formed plateau, defended by a water-ditch on the south, communicating with Jordan, and by the Sea of Galilee on the north. This is called Kh. el Kerâk, and is, I have not the slightest doubt, the remains of Vespasian's camp described by Josephus. It is just like another Roman camp found near Jenin, where an army was camped. Thus we have an example still in the country of the military precision of those irresistible conquerors. This Kh. el Kerâk has been identified with Tarichæ, but, as Major Wilson has pointed out, that site must be sought to the north of Tiberias. The finding of Sennabris, the place where the Roman host encamped before marching on Tiberias and Tarichæ, clearly proves that the latter place could not have been anywhere near the southern end of the lake.

The next point of interest on the shore is the hot springs of the Hammam, three copious springs burst out of the rock, with a temperature of 140 deg., and containing a considerable quantity of sulphur. Baths have been built, and they have been famous for ages for the cures of rheumatism and other disorders. They are constantly used by the natives, who often come from long distances to benefit by them.

The ruins of ancient Tiberias with its sea-walls and scattered columns extend nearly as far south as these springs, and it may be fairly supposed that the modern site of the town is situated to the north of the ancient place.

The next point of interest is the site of Tarichæ, an important town on the seashore. We know that it could not have been far from Tiberias, on the northern side, also that it was strong to the south, but had a plain to the north, for Vespasian, attacking from the south, sent his cavalry under Titus round the town to attack the Jews on the open ground, where he routed them, and entered the town with the fugitives. A ruined site was found answering to all these qualifications at Kh. Kuneitrîah, situated on the top of a steep round hill rising abruptly from the seashore. This was, in my opinion, the citadel of Tarichæa; the town itself was probably on the plain to the north, along the seashore, where there are traces of ruins and springs of water.

Passing the ruin and the plain beyond, the path leads along the side

of the steep slope of the hills, with rocky cliffs towering above, and the sea almost directly below; turning a corner, the Plain of Gennesareth lies spread out before us, with the cluster of ruined hovels of the village of Mejdel in the foreground. A fine stream of water irrigates this portion of the plain from Wady Hamam, the narrow gorge through which the levelling had been brought down, with cliffs 1,000 feet high on either side. In those on the southern side are the romantic caves of the brigands who were subdued by Herod the Great by letting down gangs of soldiers on platforms from above on the despairing defenders: these, sooner than be taken captive, slew one another with their swords.

I explored the caves, which consist of galleries at different heights conducted along the face of the precipice leading to different sized chambers; some appeared natural, while others were artificial; there were spacious halls, small sleeping-places, and some enormous stables, all cut out of the solid rock. Water was brought by a long aqueduct, cut in the face of the precipice, and poured down into cisterns inside the fortress. The place has been since occupied by Arab marauders, who have built walls to defend the outside of the galleries and round towers at different elevations on the face of the rock, to bring a flanking fire on the entrance, which was reached by a long flight of basalt steps. Now all is ruined, and only forms the resting-place of the eagle and the vulture; but in the bright future that seems to be about to dawn on that land, what a delightfully cool retreat this would make for the owner of the fair plain stretched out 1,000 feet below.

Beyond Mejdel on the Plain of Gennesareth, and round the northern shores of the lake, are the most interesting sites of all; Capernaum, Chorazin, and Bethsaida. The country here has been so carefully examined by Major Wilson that the survey was not able to throw much new light on the question of these sites, the solution of which must be sought underground. I am sorry I cannot agree with Major Wilson on the position of Capernaum at Tell Hum, but would rather place it at Kh. Minyeh on the plain, believing the fine remains of Tell Hum to be the relics of the known grandeur of the ancient Bethsaida. The clearing up of this intensely interesting question by means of excavation is one of the objects to be attained by the future expedition that the Palestine Exploration Fund intends sending out as soon as sufficient funds are available.

On the 4th April our camp was moved to Khân Jubb Yusef, situated on the great Damascus road, and some distance from any inhabited village. The country round is occupied by wandering tribes of Bedouin Arabs with their goat flocks; to the east it is a mass of basalt which has flowed over the country, and down to the shores of the lake; to the west we had the limestone hills of Safed.

I visited the extensive ruins of Kerâzeh, the ancient Chorazin, and was struck with the precision and minuteness of the ornamentation of the niches of the ruined synagogue cut out of the hardest basalt, and remaining as fresh and sharp as they were when new.

On the 10th we marched to Safed, the scene of our conflict with the natives on a former occasion. Mr. Eldridge, the British Consul-General for Syria, had kindly arranged that I should be well received, and the arrival of H.M.S. Torch at Acre, of which I was informed by telegram, made it certain that I should not be molested on this occasion. The governor of Safed, with a score of soldiers and followers, came out half way to my camp to meet me, and we rode into the town in a triumphal procession. I remained six days, and was much annoyed by the continual visitors I had to receive. The most interesting of these was Aly Agha, the cause of our former unpleasantness. Now he came as a ruined, humble man, after undergoing his term of imprisonment, to beg for forgiveness. I was glad to be able to remit a small portion of the fine, some £60, that had not been paid, on account of their good behaviour on this occasion. Unfortunately our standard barometer was broken on the journey to Safed. I had to send to our store at Haifa for a duplicate one to be brought on foot.

The country was naturally very much excited about whether there would be war or not, and I was very pleased to learn on the very best Turkish authority that peace was assured, Bismarck having been dismissed. Unfortunately, next day a cipher telegram from Mr. Eldridge warned me that war was declared and advised a retreat.

I visited a Mohammedan sacred place in the town called the Mukâm Benât Yakûb, or the sacred place of the daughters of Jacob. Many legends were attached to the place. I was shown without difficulty into the little mosque and then into a large square cave, which had originally been a tomb of some importance. Two rows of recesses for sarcophagi lined the walls. Here tradition relates that Jacob and his children lived, and that when he was old and blind they brought him Joseph's coat, and the smell of it at once cured him. On regaining the outer mosque I saw a small door with a green curtain hanging over it and incense burning in front; this I was told was the tomb of the seven daughters of Jacob. There they were said to be all as in life, their beauty unimpaired, but it was too sacred to be approached by any but a true believer. I insisted, and was then told that these beautiful and holy maids were very quick to take offence, and devoured any one who came too near their place of rest. However, after a little persuasion I pushed the sheikh aside and squeezed through the hole, being nearly stifled with the bad incense. After a drop of some feet I found myself on the floor of a cave that opened into another. I explored the caves, one of which had been a tomb; the roof had fallen in, probably in the earthquake of 1838. No recumbent semitic beauties awaited me, and I was very glad to get out into the fresh air again.

Our next camp was at Meiron, where we were received very cordially, owing to the governor of the district, who accompanied us thus far, informing the villagers that if we were not well treated in everything he would come next day and burn the village down.

From this camp the triangulation required a considerable amount of attention. The Jebel Jermûk, the highest peak in Galilee, reaching an altitude 3,930 feet, had been observed from the south, but now it was necessary to ascend and observe from it; this was accomplished, and the triangulation was thrown well forward to the north, but I clearly foresaw that the triangulation would not allow of our descending to the low, unhealthy Huleh marshes as early in the year as I had hoped to do, and another two or three camps must intervene before we got that critical portion of the survey accomplished.

The village of Meiron is a famous Jewish place of pilgrimage, for there Rabbi Shamai and Hillel and the great Simeon Ben Jochai lie buried. The rocks around are honeycombed with ancient tombs, and there still remains an almost perfect *façade* of an ancient synagogue, dating probably from the second century after Christ.

The great pilgrimage of the year came off while we were there, on the 30th April, and lasted three days. The Jews arrived in thousands on foot, on donkeys, camels, or mules; some came from great distances—it was said some even came from England; and yet it was a very bad year, owing to the disturbed state of the country. The governor arrived to keep order, and a guard of soldiers protected the roads. This was no unnecessary precaution, as the first day they brought in an Arab they had shot while rifling some stragglers on the line. In the evening the ceremonies began in the large modern building that contains the tomb of Rabbi Simeon Ben Jochai. The whole place was turned into a fair—feasting, dancing, and singing went on all night; great torches were lighted over the tomb and lit up the motley crowd; into these torches, or rather braziers, the devotees cast embroidered scarves, silks, and dresses. The chief rabbi sells by auction the right to light up these fires, and is said to clear £200 in one night.

The men kept up an incessant din with rude instruments and singing; they ran round and round in circles, holding each other's hands and occasionally throwing up their arms; they were all dressed in dirty long dressing-gowns and huge felt hats. Lit up by the blazing torches they had the most grotesque appearance. The contrast between all these intensely-excited Jews, some of them apparently intoxicated, and the solemn, unmoved serenity of the Turkish Governor and officials, sitting on their mats smoking, was very striking.

The women occupied the upper chambers of the building, and seemed more devout; some of them were engaged in prayer. They have a firm conviction that these pilgrimages insure their having children.

The principal results of the survey of this district were the discovery of three dolmens. During the course of the survey eight dolmens were discovered, and as these are the first that have been noted in Palestine, it adds a new district to those already known to possess these rude stone monuments, and may be a connecting link between the ancient inhabitants of Europe and India.

The remains of two synagogues, unobserved hitherto, were discovered.

one at Sŭfsâf and the other at el Jish. These add considerably to our knowledge of these interesting buildings, and the discovery of the Roman eagle engraved in relief in the synagogue of el Jish adds new proof that these buildings are due to Roman influence over a subjugated people. The eleven specimens that remain to us of these buildings were carefully examined and planned during the course of the survey where it was possible to trace the original work.

On the 3rd of May I moved camp to Dibl, a Christian village. I had received a telegram from the Society directing me to take steps for the safety of the party, and I therefore attached four bashi-bazouks to the expedition as guards. We thus formed a large party, quite capable of resisting any small fanatical rising; and as most of the young men had been drafted away in the conscription, I had no fear of a general massacre of the Christians.

The inhabitants of Dibl were packing their few portable articles, and preparing for flight to Tyre, when we arrived.

Our greeting was most enthusiastic, as they at once determined not to desert their village and crops, and to remain under our protection. There are a good many Christian villages in this part of the country quite distinct from the Moslems. A Christian village can be known from a distance by the greenness of its vineyards and fields, in striking contrast to the barren desolation surrounding most Moslem villages. The terrible fatalism of their religion destroys the country. "If God wills that fruit trees or vineyards should grow they will grow," says the Moslem, as he sits and smokes.

These Christians are perfectly distinct from the Levantine mongrel race of Greeks who inhabit the towns on the seacoast. They are poor, honest, and very religious, though not very intelligent; their creed is either Maronite or Greek, generally a mixture. The Maronite priests marry, and are looked up to as the father of their flock, and their director and representative in all cases of difficulty. It was soon spread through the neighbouring Christian villages that we had arrived, and a deputation of the priests came to me for advice. I recommended them to remain quietly at their villages, and to warn their people not to get into any dispute with the Moslems.

They were very anxious to buy arms and defend themselves, but that course might have led to what they most dreaded. I am glad to say that our influence in the country at this crisis caused these poor Christians to remain in their villages, which if they had deserted would have been seized by the Moslems, and would undoubtedly have led to a grave disturbance.

I must also bear testimony to the stringent orders sent from Constantinople to the Turkish governors and officials to protect these Christians, and to put down any attempt to drive them out of the country. There was more cause to fear this, as the ignorance of the people led them to believe the war was one of religion—Moslem against Christian, instead of Turk against Russian.

Every evening after sunset a bell was beaten in the village, and all the male population went to the poor chapel, where there was a short service; after this they came and sang and danced in front of our tents, sometimes for hours together.

One evening about eighty Bedouin Arabs with their wives and families arrived. Their chief's son had been ill, and they had taken him three days' journey to the tomb of the famous prophet Joshua; this was supposed to have cured him, and they were now returning joyful after their pilgrimage. I had a goat killed in their honour, which made us the best friends, and they kept up dancing and singing round fires in front of our tents all night. The men went through the usual war dance, imitating the attack and defeat of an enemy, to the accompaniment of clapping hands; but what was more curious was later in the evening, when two of the prettiest women were called out by their husbands, and went through a peculiar and very graceful dance with swords; they were unveiled, and looked quite handsome by the fire-light. Having rewarded them with lumps of sugar, I left them singing songs in our honour. Next morning they were all gone, having left pressing invitations for us to visit them. Two days later the chief came to thank me for the medicine I had given his boy.

The triangulation and survey of the country took twelve days; a number of curious ruins were visited, and special plans and photographs were made.

The country to the west was rugged and rocky, covered with brushwood, and occupied by Arab tribes. Deep ravines and gorges carried the winter rains down to the sea, and in many parts of this wild country a European had never been seen before.

To the east the country was more open and cultivated; there are not many springs, but numbers of rock-cut cisterns and large pools for collecting the winter rains at almost every village.

On the 16th camp was moved east to Kades, and from the camp a good deal of the plain of the Hulch and the low country was surveyed. The ruins of the Temple of the Sun were planned and photographed. On the plain below our camp the Arab tents stood exactly as those of Heber the Kenite did on the eventful day when Jael, his wife, slew Sisera, the captain of Jabin's host.

On the 24th we were again marching northwards, and having pitched our camp at Taiyebeh the triangulation was carried to our most northern point, the great Crusading Castle of Beaufort. We were here in the neighbourhood of the four Crusading castles which defended the northern frontier of the kingdom, Beaufort, Toron, Hunin, and Banias. From a study of the masonry of these buildings, and after comparison with others in different parts of the country, I am led to suppose that they are none of them older than Crusading times, except a portion of Banias, which appears to be slightly older work; and, therefore, that none of them date, as most travellers assert, from Phœnician or even Roman times.

At Toron, or Tibnin, as it is now called, the governor of the district

still resides, in the castle which has been rebuilt by the Saracens on the old foundations.

On the 2nd of June camp was moved to Banias, the ancient Cæsarea Philippi of the New Testament, and the Panium of Josephus.

Our triangulation was here successfully closed on this side by observing from the castle.

This was the ancient acknowledged source of the Jordan springing out of the cave of Pan in the face of a precipitous rock, and rushing at once in a strong stream through the tangled groves of luxuriant vegetation to the plain below, there to be joined by its rivals in modern writings, the Leddan and the Hasbany.

I think our map will bring back the wavering allegiance to this ancient source.

The Hasbany has a less flow of water than either of the other two streams, and joins them after their junction, when they form a mighty stream. How, then, can it be followed as a source of the Jordan? When the other two divide into almost equal streams, the longest course leads to this fountain of Banias, the true source of the Jordan.

This leads us to a consideration of the most interesting geographical feature in Palestine, the great depression of the Jordan valley, which is merely a continuation of the great valley extending through Syria, dividing the Lebanon from the Anti-Lebanon, and down which the Leontes and Jordan rivers flow. I approach this portion of my subject with considerable diffidence, as advancing what, as far as I know, is a new theory for the solution of the physical geography of that region. Should it receive the support of geographical scholars it will be an additional scientific result of the Survey of Galilee.

There is little doubt that, as Canon Tristram has pointed out before this Association on a former occasion, the great depression of the valley was caused by a fault, and the sliding down of the strata, and that it was once an immense lake. This is proved by the ancient shore-lines found at different elevations along its course.

The general supposition is, that it has been a continuation of the Gulf of Akaba, and that the gentle rising of 130 miles has cut off the Dead Sea from the ocean. It is curious that on this raised land there is still a well-defined valley having a fall, and showing the channel of a water-course, as far as we know, the whole way. Considerable volcanic action was observed in the north, and a volcanic outbreak was found exactly in the bed of the valley of the Leontes, at the bend of the river; it has been mentioned previously by Canon Tristram, who noted the way the basalt had flowed down the western side of the Hasbany. We know that these volcanic outbreaks belong to a late period of geological time. What then would have been the effect before this outbreak in the bed of the river? The Leontes, instead of being forcibly turned off at right angles to its course in that most extraordinary bend which makes it cleave through the rocks to the sea, would have flowed into the mighty lake which then covered the plain,

and over the southern boundary along the Arraba, which still shows signs of its presence, to the Gulf of Akaba. The only supposition required in this theory is a more abundant supply of water, and of that the country gives striking proof. The extraordinary evidences of the action of glaciers on the rocks, the deep water-courses cut through hundreds of feet of solid limestone, now dry, speak of a former age of rushing torrents.

Thus this volcanic outbreak in the Merj Ayun is the key to the present formation of the valley; a very slight cutting through it would again turn the Leontes into its former course down the Jordan valley and into the Dead Sea. The saltness of the Dead Sea may be accounted for by the great natural cliffs of rock-salt found at its southern extremity, and by the many salt springs that are found in that region continually pouring brine into its waters. These cliffs of rock-salt at the Khashm Usdun are a natural crystalline formation, and cannot, therefore, have been deposited by an evaporating sea.

The formation of the lakes is accounted for by the silting up of the plain by the *débris* brought down from the hills in the winter torrents. The great river, the Yarmûk, which drains the whole of the Hauran, joins the Jordan immediately south of the Sea of Galilee, and formed the southern shore of that sea by the *débris* it brought down. There are a succession of streams south of this, bringing down *débris* from both sides of the valley, some large as the Zerka and the Farah, and thus a continuous plain was formed down to the Dead Sea; but along the shores of the Sea of Galilee there are no watercourses of importance, except where the Hamam and Rubadiyeh streams form the Plain of Gennesareth.

The northern shore of the sea is formed by a volcanic outbreak, which nearly blocks the valley. This is the only part in the course of the Jordan where it is shut in between rocky banks. To the north of this, another broad plain is formed by the *débris* washed down in the great valleys from the west, driving the little lake of the Huleh into the north-east corner, where no streams, except those from the north, can reach it. Thus protected, the marsh and lake of the Huleh is only being filled up from the north by the *débris* brought down by the Jordan itself, which is gradually forming a plain out of these beds of Papyrus.

Banias was extremely hot and unhealthy at this time of year, and though our camp was most delightfully situated under broad spreading olives, with water running from the source of the Jordan between our tents, still I was not sorry when, on June 10th, the work was finished, and we were able to leave without any ill health. The eastern portion of the survey being thus finished, we had to march across the country and carry the survey south, along the seashore. On the first day we marched to Taiyebeh, and the next arrived at our new camp at Marakah. The country round was very difficult, and proved a very severe piece of work. First the triangulation was well

completed along the northern boundary; the stations being permanent objects, so that in future, perhaps not very distant now, we may extend it over the northern almost unknown country east of Sidon. When, however, the survey of the detail began, we found what an unpleasant country we were in; very deep wadies cut through the soft white chalky limestone, and the banks were so steep that when travelling north or south it was a continual case of sliding down one side of a valley to scramble up the other, a very fatiguing process. The country was crowded with villages and ruins.

On the 22nd camp was moved to Nakurah; here we suffered considerably from the heat, particularly at nights, and the mosquitoes added to the unpleasantness.

From the Ras en Nakurah I took the last round of observation angles which closed the triangulation of the whole of Palestine: these joined very well on our base, and the check calculations have proved its accuracy.

On the 2nd of July camp was moved to Yanûh, our last station; here we were completely surrounded by the work already done, and were able to make rapid progress.

On the 11th July we all arrived at Haiffa once more, safe and well, after completing the survey of 1,000 square miles of country. The whole expenditure was £900, and taking £100 as the cost of the fair drawing, we may claim to have produced a 1-inch survey at the cost of £1 a square mile.

After four weeks' rest in the Lebanon, the field was taken again on the 23rd August with a reduced party, as my sergeant had been obliged to return to England on account of ill health. A long march led to the South country, and we surveyed 340 square miles in the desert round Beersheba. This completed the survey of Palestine, but the early portion required revision, and from 10th October to 22nd November we revised 1,700 square miles. The party, having completed all it was sent to perform, then returned to England.

I have now told you what has been done. Let me say a very few words on what it is proposed to do next.

As soon as funds are available, an expedition will start to explore the sites of the most sacred scenes of the New Testament history: the northern shores of the Sea of Galilee, where undoubtedly Capernaum, our Lord's own city, Chorazin, and Bethsaida still exist.

In addition to this the expedition will make a thorough survey of the unknown country forming the eastern shores of that sea on the same scale and with the same accuracy as the present Survey.

If this great Association considers that what we have accomplished has added largely to the scientific knowledge of an ancient country, let me hope they will show their satisfaction in the results we have obtained by helping us in the renewed efforts in the same direction.

Let me add one more result we hope to obtain. We hope to rescue from the hands of that ruthless destroyer, the uneducated Arab, one of the most interesting ruins in Palestine, hallowed by the footprints of

our Lord. I allude to the synagogue of Capernaum, which is rapidly disappearing owing to the stones being burnt for lime.

Ought we not to preserve for ourselves and our children buildings so hallowed, so unique? Let us hope that if this expedition succeeds it may be the means of leaving some footprints in the sand of time—

"Footprints that perhaps another
Sailing o'er life's solemn main,
A forlorn and shipwrecked brother,
Seeing, may take heart again."

Major Wilson, C.B., F.R.S., observed that Lieutenant Kitchener had omitted to mention, through modesty, the difficulties he had to surmount owing to the country being at war. From private information he had received from the consuls in Palestine he could assure the meeting that the tact and energy displayed by Lieutenant Kitchener in protecting the Christian population had greatly tended to the preservation of peace in that country.

Canon Tristram pointed out the great value the map displayed would have on the Biblical knowledge of the future, and hoped that not only this Association, but all who took an interest in the work, would help in the renewed efforts that were about to be made by the Society.

The Chairman, Sir Wyville Thompson, said that he felt sure that such a project would not fail for want of funds. He hoped that the Association would be able to assist the work by a grant, and he felt sure that the meeting would unanimously pass a vote of thanks to Lieutenant Kitchener for his interesting paper.

REPORT ON THE COMPLETION OF THE WORK.

Mr. Chairman and Gentlemen,—It is with great regret that I leave the service of the Palestine Exploration Fund after a period of four years' work. I beg to tender to you and to the other members of the Committee who are not present on this occasion my best thanks for the universally kind and indulgent way in which I have been treated, particularly during the time I was in command of the Survey of Palestine in that country. During that very critical period when Turkey was at war the confidence placed in me by the Committee enabled me to carry out the survey in my own way, when, had it been necessary to apply home for detailed directions, I should very probably not have succeeded in the enterprise.

I strongly recommend to the Committee to adopt the same course with any brother officer who may be sent out in a similar position, and I feel sure that the Committee will not find their confidence misplaced in any officers of the corps of Royal Engineers who may hereafter carry on their work.

In handing over to the Committee the completed survey of Western Palestine, I beg leave to state what they have now in hand.

1st. A completed survey, 1-inch scale, of rather more than 6,000 square miles, prepared for publication with hill shading by the Ordnance Survey department.

2nd. Twenty-six volumes of Memoirs—viz., twenty by Lieutenant Conder and six by myself, comprising the notes made by the survey party while at work.

3rd. A reduced map prepared by myself in accordance with your instructions for the engraver, with corrected photographs to enable the printer to proceed.

4th. A number of photographs taken by me.

5th. A number of special plans by Lieutenant Conder and myself. A few of these are not fair drawn, but all are in such a state that they can be rapidly finished without further instruction.

With regard to publishing the reduced map, I have asked for and received black impressions of the hills, from which the engraver can work, and I shall be glad to correct the proofs.

With regard to the publication of the Memoirs, a considerable number of plans and sketches, in addition to those now in your hands, will probably have to be drawn from Lieutenant Conder's and my own note-books. An editor with a thorough knowledge of the subject is necessary, as it may be thought desirable to comprise the results of Major Wilson's, Major Warren's, Captain Anderson's, and M. Clermont Ganneau's investigations, so as to make a complete publication up to date in every respect. This will be no light task, and in some cases the observations of different officers may not be found exactly to agree. A year's work for a capable man would, in my opinion, be necessary to produce a thoroughly good and permanent result.

The maps I hope will be published early next year, the Memoirs a year later.

I cannot conclude without mentioning the excellent services of Sergeant Armstrong and Corporal Brophy, who have served the Committee longer than any other non-commissioned officers.

Sergeant Malings and Corporal Sutherland are also deserving of great credit for the way they performed their work under me.

I shall at all times be ready to serve the Committee to the best of my ability, and beg again to thank them for their many kindnesses.

H. H. KITCHENER, Lieut. R.E.

PROSPECTUS OF THE PROPOSED EXPEDITION TO SEA OF GALILEE.

After the surveyor, the archæologist; after the theodolite, the spade. The great Survey of Palestine, west of the Jordan, having been brought to a successful conclusion, the Committee are enabled to turn their attention to that examination of certain special districts which was contemplated in the original prospectus of the Society, and has been always kept in view. One great object of the Survey was to furnish that solid geographical knowledge without which the Historian and Commentator, as well as the Geologist and Mineralogist, work in the dark. That object is now attained. The ground has been cleared, the opportunity for a close examination gained. We have a real grasp of those districts in the Holy Land which are connected with the Life and Labour of Our Lord. The Survey is one means to the great end of Biblical illustration. For six years we have been engaged in work *on* the surface: we now propose to work *beneath* it.

Foremost amongst those special districts is the Sea of Galilee. A special examination of these shores will produce results of the greatest value. The work might be confined to a limited period; its cost might fall within a stated sum; and it would furnish materials for a monograph to be published without delay.

Our present knowledge of the Lake district may be briefly summed up. The western shore has been surveyed and the level of the sea accurately determined by Lieutenants Conder and Kitchener in the great Survey on a scale of one inch to a mile. Captain Anderson made a reconnaissance of the Eastern shore in 1866; tentative excavations were conducted at one or two points in the same year by Major Wilson. On the plain of Gennesareth there are many mounds, remains, probably, of towns and villages in which our Lord taught. These require examination. On the Eastern shore there are the sites of Gergesa (Khersa), Gamala (El Husn), the still unidentified Hippos, and Gadara (Umm Keis), which have never been thoroughly explored.

The main interest, however, gathers round the three towns of Capernaum, Chorazin, and Bethsaida. The controversy with regard to the sites of the three Gospel cities is still open. Capernaum has been variously placed at the Round Fountain, at the mounds of Minyeh, and at Tel Hum. The advocates of the first-named site, the Round Fountain, maintain that it is the Capharnahum of Josephus, and point to the fact that the coracinus is still found in it; on the other hand, its opponents argue that there are no ruins nearer the fountain than Abu Shusheh, which is on the hills some distance off; that no tradition has ever been connected with it; that the fountain does not now, and never could have irrigated any considerable portion of Gennesareth; and that the fountain of Ain et Tabigah, once carried at a high level by a remarkable

piece of engineering into the Plain of Gennesareth, is more likely to be the fountain mentioned by Josephus. In favour of the mounds of Minyeh, it is urged that the old Roman road which crossed the Jordan at Jisr Benât Yakûb left the shores of the lake at this point; that the name of Capernaum might very well be taken from the Tabigah fountain, the waters of which were carried along the face of the hill above the mounds by a rock-hewn conduit; that the mounds in themselves are evidence of the former existence of a place of some size; and that Talmudic doctors (see Conder's "Tent Work in Palestine," vol. ii., p. 184) speak of Capernaum as the city of Minyeh. Against the site, it is agreed that no traces have been found of old buildings, or of any tombs of a distinctively Jewish character; and that in the excavations of 1866 nothing but modern masonry and pottery was found at the lowest depth (12 feet) reached; while the earlier Christian traditions favour Tel Hum rather than Minyeh.

The advocates of Tel Hum point to the existence of ruins covering a large extent of ground, including those of an undoubted Jewish synagogue, which appears to be the earliest of its kind in Galilee; the existence of a remarkable Jewish tomb of white stone beneath the basalt; and of another tomb, apparently one of a group, constructed in masonry on the plan of the rock-hewn tombs; the similarity in the name—"Mount of Hum" for "Village of Nahum;" early Christian tradition, the fact that the synagogue has been included in the scheme of a later building, probably an early Christian church; traces of an old road leading to Kerazeh (Chorazin); the fountain at Et Tabigah, which, on the hypothesis that Minyeh is not an old site, is near enough to have given its name to the place. Against Tel Hum it is argued that it is too far from the fountain of Tabigah; that there are no traces of a Roman road in the neighbourhood, or of any piers on the shore; and that the apparent similarity of the name is not real, because one of the radicals in the word Nahum has disappeared, and the modern name simply means "black mound." To show the diversity of opinion on the subject of Capernaum, it may be mentioned that Dr. Wilson ("Lands of the Bible"), Mr. Hepworth Dixon ("The Holy Land"), Sepp, Ritter, Major Wilson ("Recovery of Jerusalem"), Dr. Bonar, and Dr. Socin ("Bædeker's Handbook") either pronounce strongly for, or incline in favour of, Tel Hum; while Dr. Robinson, Canon Tristram, Mr. MacGregor, Lieutenant Conder ("Tent Work in Palestine"), and Lieutenant Kitchener, advocate the claims of Khan Minyeh.

Chorazin, in the same way, has been placed at Minyeh, Tabigah, Tel Hum, and Kerazeh. Bethsaida, or the two Bethsaidas, at Minyeh, Ain et Tabigah, Tel Hum, Et Tell, and the mouth of the Jordan. Tarichea, at Kerak, south of Tiberias, while later investigations seem to show that it was really north of that place.

IT IS PROPOSED to make an exact and exhaustive examination of the Lake District in the following respects:—

1. Excavations will be carried out at Minyeh, Tel Hum, Kerazeh, and

the mounds at the mouth of the Jordan. Minor excavations, according to the discretion of the officer in command, will be made at Ain et Tabigah, Tel Oreimah, the tombs to the north, the mounds of Gennesareth, Abu Shusheh, Mejdel, Ain el Fuliyeh, Irbid, Tiberias, Kerak, Umm Keis, Kalat et Husn, the ruins at Khersa, and tombs near it, Et Tell, the ruins in the Batiheh, and such other mounds and remains as are found on the borders of the lake.

2. The Eastern shores will be completely surveyed and mapped, and the ruins examined.

3. The remarkable synagogue of Tel Hum, which, if that place be Capernaum, is the synagogue in which our Lord taught (John vi. 59), will be cleared to the foundations; every remaining stone, and every fragment of its broken columns and architecture collected, and care will be taken to prevent further destruction.

4. Whatever additions can be made to the already large store of information in the hands of the Committee as to nomenclature, legends, and traditions will be collected. The geology of the district will be thoroughly examined, especially with reference to the formation of the Jordan valley, and former volcanic disturbances; notes will be taken of the meteorology, the botany, and zoology, of the district; casts will be taken of inscriptions; localities will be photographed; plans will be laid down on a conveniently large scale.

5. As regards the best time for working, the party should be in the field early in December, and work continuously till the end of March, after which field work becomes impossible on account of the growth of thistles and the thick vegetation. The expedition should consist, if possible, of two officers of Royal Engineers, an Arabic scholar, a geologist and naturalist, and two non-commissioned officers of Royal Engineers. The whole expense of the expedition should not exceed £2,500. For this comparatively small sum a detailed and scientific examination may be made, and questions which have disturbed the Christian world for centuries may be finally set at rest.

It is sought to raise this amount by a special effort (independently of annual subscriptions).

Promises of donations or cheques may be sent to the Secretary, at the Society's Office, 11 and 12, Charing Cross.

ZION, THE CITY OF DAVID.

WHERE WAS IT? HOW DID JOAB MAKE HIS WAY INTO IT? AND WHO HELPED HIM?

(N.B.—I am indebted to Lieut. Conder's "Tent Work in Palestine" for the annexed plan of Jerusalem. The positions mentioned in this paper correspond with the plan as follows) :—

In the Paper	In the Plan
A	is a *valley* bounding the "Upper City" on the west and south from "Hippicus" to near "Siloam."
B	is a *valley* bounding Jerusalem on the east, from "Corner Tower" to "Siloam."
C	is the *valley* marked "Tyropœon V." and extending to Siloam.
D	is the "Upper City."
E	is at "Acra."
F	is at "B (Antonia)."
G	is at the place of letter "H."
Enrogel, or The Virgin's Fount	is at "Gihon."
Araunah's Threshing-floor	is at "A (Temple)."

In answering these questions we shall use the Bible, and utilise two of Captain Warren's wonderful discoveries at Jerusalem.

Two valleys, A, B, claim to be the Valley of Hinnom; three positions, D, E, F, have been advocated as the site of Zion, the city of David. It is proposed to show that another valley, C, is the true Valley of Hinnom; another position, G, the true city of David; and, lastly, that the "Gutter" was the secret passage above the Virgin's Fount, discovered by Captain Warren, up which Joab climbed with the aid of Araunah.

The Valley (Hebr. Gai) of Hinnom.

"The border went up by the valley of the son of Hinnom unto the south side of the Jebusite, the same is Jerusalem" (Josh. xv. 8; xviii. 16; Neh. xi. 30).

A. The valley west and south of the upper city of Josephus, Wâdy er-Rabâby, has been generally taken to be the Valley of Hinnom This line puts Jerusalem *entirely* in the tribe Benjamin; but while "Jebusi, which is Jerusalem," is reckoned to Benjamin in Josh. xviii. 28, some part of it must have been in Judah, for after the list of its cities (Josh. xv. 63) it is added, "As for the Jebusites, the inhabitants of Jerusalem, the children of Judah could not drive them out, but the Jebusites dwell with the children of Judah at Jerusalem unto this day."

Again in Judg. i. 3-8 Judah, contending for *his lot*, comes to Jerusalem and takes (or had taken) it, setting the city on fire, yet still (i. 21) "the children of Benjamin did not drive out the Jebusites that inhabited Jerusalem, but the Jebusites dwell with the children of Benjamin in Jerusalem unto this day." Apart from Josephus's remark that the lower city was taken and the upper was not, these passages alone show that Jerusalem was partly in Benjamin, partly in Judah.

Therefore it is impossible for valley A to be the Valley of Hinnom.

B. The valley (Hebr. Nachal = Brook) of the Kidron is accepted as the Valley of Hinnom (Jerusalem Rec., p. 307) to suit Arabic accounts, and (Jer. xix. 2, Auth. Ver.) *East* Gate as the translation of *Harsith* Gate. To this view is the fatal objection that it sets aside any distinction between "Gai" and "Nachal," by taking the two words to describe the same

valley, while Gesenius under *Gai* observes, "The Hebrews appear to have discriminated between this and several other words usually rendered valley (*Nachal*, *Emek*), for to the same place they *uniformly* apply the same name."

Therefore B is not the Valley of Hinnom.

C. The valley running through the city, called, in part at least, by Josephus the Tyropœon Valley, passing through the Pool of Siloam (so called), and now to a great extent filled up, as discovered by Captain Warren.

As there are no other valleys, either A or B or C must be the valley required. It has been demonstrated that neither A nor B is such.

Therefore C is the Valley of Hinnom.

If this identification be *not correct*, then the valleys of Jerusalem are in a state of inextricable confusion; but for it to be *satisfactory* it must rest, not on the faults of A and B, but on the merits of C, which are as follows. We have—

1. Just the boundary required between the two tribes, giving the south-west hill and one side of the valley to Judah.

2. A valley of a character suiting the name (*Gai*) ravine.

3. Possibly a link of connection between the "valley gate" (Old Test.) and Gennath Gate (Jos. Wars, v. 4. 2), taking the "Gai" to bend towards the Jaffa Gate.

Gennath = (?) Ge-hennath Gate = Gate of the Valley of Hinnom = Valley Gate (2 Chron. xxvi. 9; Neh. ii. 13; iii. 13).

4. Jer. xix. 2 in our favour, translating *Harsith* gate either (Targum) *Dung* gate, or (Thrupp) *Pottery* gate, or even *East* gate (A.V.).

Thus the apparently mysterious silence of the Bible about the great central valley is simply explained by its identification with the Valley of Hinnom.

But what becomes of the west and south valley? Is it not almost as mysterious that it, too, should not be named in the Bible? Most opportunely Jer. xxxi. 38-40 gives us just what we want. Here, obviously, a circuit is described round the city. In this the Valley of Hinnom, of course, could have no place, and so it is not found; but the west and south valley occurs in the words, "the whole valley of the dead bodies," where *valley* is not (Hebr.) Gai or Nachal, but *Emek* (LXX., κοιλάς, and A. V. often *Dale*).

With what wonderful precision is the Bible now seen to speak, when we treat it on the reasonable principle that the same name is never given to any but the same valley—*i.e.*, when we accept as an axiom, in regard to Jerusalem, that Nachal = Eastern valley; Gai = Central valley; Emek = West and South valley.

This distinction has not been just invented to suit a new theory, though it suits exactly the topography of Jerusalem. Gesenius long since noticed it, Lewin approved of it, Williams "had misgivings" in disregarding it. We only insist on its *rigid* application, confident that it is the *key* to Jerusalem.

Armed, now, with Gesenius's canon, we rush fearlessly into the valleys, exploding errors and blowing away difficulties right and left.

Gai.—They bury Adonibezek *in the earth* (γῇ θάπτουσ., Jos. Ant., v. 2. 2). As LXX. (Josh xv. 8) has γῆς Ῥαφαείν, apparently for *Gai*, by error for Emek Rephaim, so Josephus may mean that Adonibezek was buried in the *Gai*, doubtless the burying-place of the early kings of Jebus, as afterwards of the kings of Judah.

Emek.—(1) Absalom's pillar (2 Sam. xviii. 18) was in the *king's dale* (*Emek*). Josephus adds, two furlongs from Jerusalem, which suits well Wâdy er-Rabâby.

(2) The king of Sodom, Melchizedec, and Abram, met at the valley of Shaveh, which is the *king's dale* (*Emek*, again). As the great north road passed near Jebus, it is reasonable to accept the opinion of Josephus, and to identify the Valley of Shaveh with this Emek (Jer. xxxi. 40).

(3) The Valley (Emek) of Jehoshaphat (Joel iii. 2, 12) or decision (*id.* 14). Thrupp (p. 214) says "the allusion to the winepresses points to where the king's winepresses stood (south-east of Jerusalem), and the metaphor of the harvest conducts us further westward to the cornfields of the Plain of the Rephaim," and so concludes that the ravine of the Kidron cannot be exclusively intended. We may assert that the valley intended is no other than the "*Emek*" or the *King's Dale*, whose eastern and western limits are thus exactly marked by Joel.

(4) Isa. xxii. 1–7 possibly may not refer to Jerusalem (Spk. Comment.). Our *key*, however, passes smoothly the two wards "valley (*gai*) of vision" and "the choice of thy (*emek*) valleys"—*e.g.*, the King's Dale and the valley of Rephaim.

(5) Jer. xxi. 13 (commonly applied to Jerusalem), "I am against thee, O inhabitant of the valley (*emek*) and rock (*tzur*) of the plain (*mishor*)," &c. "But," an objector says, "the inhabitants of Jerusalem never dwelt in the *emek*, and *the mishor* is an expression only used of the upland downs *east* of the Jordan. Your *key* won't move now." That is bad. But patience! We have found another near Og's iron bedstead, and it turns beautifully. (See note on Rabbah.)

Nachal (1), Jer. xxxi. 40. "All the fields (Hebr. Sademoth) unto the brook (Nachal) Kidron." This reading, compared with 2 Kings xxiii. 4, *fields* as distinguished from *brook* (*id.* 12) suggests that the proper name of the valley from (near) the Virgin's Fountain southwards, was not Nachal but *Sademoth*; and therefore possibly the *king's pool* (Neh. ii. 14) was (or was near) the Virgin's Fountain, from which point he went up by the *brook*.

(2) "Hezekiah (2 Chron. xxxii. 4) stopped the *brook* (Nachal) that ran (Heb. *overflowed*) through the midst of the land."

What he stopped was doubtless the Virgin's Fountain (*i.e.*, *Enrogel*), from which the stream issuing might well, on account of its irregular action, be said to *overflow*; for this word would exactly describe its character.

(3) "Manasseh (2 Chron. xxxiii. 14) built a wall without the city of

David, on the west side of Gihon, in the *valley*" (Nachal). The importance of this passage cannot be overrated. Here the mention of *Nachal* fixes the wall on the east side of Jerusalem, and not on the west, which I wrongly adopted in *Quarterly Statement*, 1877, p. 203. Next, the mention of *Gihon* (a descriptive word=*fountain-head*) fixes the particular part of the Kidron ravine, viz., near the *Virgin's Fountain*, which, being the only spring in the Nachal, must be the one alluded to under the title of *Gihon*. This passage at once sweeps us right into the question of the *true* site of Zion, the city of David; for here a wall built on the west side of the Virgin's Fount was outside the city of David—*i.e.*, the Virgin's Fount was on the east side of Zion. But again the company (Neh. xii. 37, *Quarterly Statement*, 1877, p. 199), about to enter the temple from the south, ascends the Ophel hill (so called) by "the stairs that go down from the city of David." This gives us further its west or south-west boundary. On the north we have as a limit Araunah's threshing-floor, afterwards the site of Solomon's temple.

Thus, begirt on every side, Zion falls, a second Sedan, and another great enigma is solved, for we see that *the city of David* stood on the eastern hill, on its southern part, commonly called Ophel (G), having the Virgin's Fountain (*i.e.*, Enrogel or Gihon in the Nachal) at its eastern base.

So strange will this position for Zion seem, that I must quote the words of Capt. Warren, who, fixing his Zion at E, says (Jer. Rec., p. 304), "The principal difficulty I find—but this is common to all theories—is that in the book of Nehemiah the city of David, the house of David, and the sepulchre of David all appear to be on the south-east side of the hill of Ophel, near the Virgin's Fount or Enrogel, and yet such a position for Zion appears at first sight to be out of the question." Since, however, 2 Chron. corroborates Nehemiah, it is best at once candidly to own that what the Bible here seems to say, it *really* says.

But if more Biblical evidence is wanted, here it is. Ophel (lit., *the Ophel*), in reference to Jerusalem, means always the hill or locality south or south-east of the temple. An apparent exception has been Micah iv. 8, "Thou, O tower of the flock, the stronghold (*Ophel*) of the daughter of Zion." Place Zion at D, E, or F, and what has Ophel to do with it? But *with Zion at G*, as required by Chronicles and Nehemiah, the connection could not be closer, and the uniform use of the word is preserved.

As the south part of the eastern ridge formed the stronghold of Zion, it is obvious that the higher portion to the north, the site of the temple, might naturally be called *Mount Zion*.

So far as I know, Josephus never mentions *Zion*, and only once *the city of David* (Ant. vii. 3. 2). 1 Maccabees (a trustworthy authority) mentions Mount Zion as the site of the temple or sanctuary, but never *Zion*, for it uses instead the term *the city of David*.

In the historical passages of the Bible *Zion=Stronghold of Zion=City of David*, or G, south of the temple, while *Mount Zion* never occurs.

In the poetical and prophetical passages both *Zion* and *Mount Zion* seem to have at times a wider meaning, but not always; *e.g.*—

(1) Micah iii. 12, "Zion shall be plowed as a field, and Jerusalem shall become heaps, and the mountain of the house as the high places of the forest." Here it seems to me that *Zion* is simply the *city of David*.

(2) Psa. xlviii. 2, "Beautiful for situation, the joy of the whole earth, is *Mount Zion*, *on* the sides of the *north*, the city of the great King."

What does this mean geographically?

Compare Isa. xiv. 13, "I will sit also upon the mount of the congregation (*i.e.*, Mount Zion) in the sides of the *north*," and Ezekiel xl. 2, "He set me upon a very high mountain, by which *was* as the frame of a city on the *south*."

Lightfoot (Chor. 22) renders it, "The joy of the whole earth is Mount Sion, on the north side." He quotes Aben Ezra, "Mount Sion is on the *north* side of Jerusalem;" Lyranus, "Mount Sion is in the north part of Jerusalem." On Ezekiel he quotes Kimchi, "The temple was to be built on a mountain, as before, and the city of Jerusalem is near it on the *south*;" and Lyranus again, "The temple was in the *north* part, but the city in the *south* part." Lightfoot then adds, "Behold! reader, Zion on the north part in the *Psalmist*, and the city on the south part in the *Prophet!*" On his map, however, he places Mount Zion at E.

Thrupp (p. 12) says, "Mr. Fergusson, following the Rabbies and Lightfoot, places Zion north of the *temple* (!)" Here is a strange error; but it does not belong to the Rabbies and Lightfoot, for they (as we have seen) place Mount Zion or the temple on the north of the *city*, which makes all the difference between right and wrong. Thus the old translation of Psa. xlviii. 2 exactly suits the position of the city of David at G, as proved above. The three rival sites, D, E, F, are all disqualified from being Zion by the evidence produced from the Bible, especially by 2 Chron. xxxiii. 14, since it would have been trifling and useless to have described a wall just west of Enrogel, as being outside the city of David, if the latter had been at D, E, or F, but with Zion at G the precision of the passage is perfect.

Some writers, however, adopt a combination. For instance, F is extended southwards to take in part or whole of G. But the interposition of the temple between F and G is fatal to the notion that, in the time of David, both F and G were in the city of David, while an intermediate spot, the future site of the temple, was exterior to it.

Others prefer following Josephus, who says David named Jerusalem the city of David, and so they give the title of *Zion, the city of David*, to all four, D, E, F, G.

Josephus is not to be blindly followed, being at times inconsistent with himself. He ventures to say (Ant. vi. 12. 3) that the cave of Adullam was near the city of Adullam, and that the exploit of drawing water from the well of Bethlehem took place when David was at Jerusalem, although it is stated (2 Sam. xxiii. 13, 14; 1 Chron. xi. 15, 16) that the three captains "went to David, to the cave of Adullam, and

David was then in the hold." Josephus has no claim to settle the question before us.

All the Biblical evidence that I know of, which at all helps us to fix the position of Zion, the city of David, requires it to be at G. 1 Maccabees entirely agrees with the Bible. So does Josephus, except on those points in which he differs from 1 Maccabees. It has been commonly thought that in the topography of Jerusalem we might elucidate the Bible by Josephus; the truth is, we have to elucidate Josephus by the Bible. His evidence and that of 1 Maccabees is given below. (See "Acra.")

The Gutter (Heb. Tzinnor).

The only reason for building the fortress of the Jebusites on the comparatively weak hill, G, was, so far as I can discover, because the spring called Enrogel was at its foot. Just eleven years ago Captain Warren discovered a secret passage cut in the rock and leading down to the spring from the hill above, evidently made to enable the inhabitants in ancient times to draw water without having to come out of the city. The passage is described in Jer. Rec., p. 251. (See illustration.)

The capture of the fortress is thus described in the Bible:—

2 Sam. v. 8. "David said on that day, Whosoever getteth up to the *gutter*, and smiteth the Jebusites, and the lame and the blind, *that are* hated of David's soul, *he shall be chief and captain.*"

1 Chron. xi. 6. "David said, Whosoever smiteth the Jebusites first shall be chief and captain. So *Joab* the son of Zeruiah *went first up*, and was chief."

Tzinnor has for centuries been another *crux*. Recently, when the topography of Jerusalem has been more studied, to get a meaning out of the expression, the word by one has been translated precipice—"the cliff or portcullis which Joab climbed;" by another the *ravine*, by which the stronghold was begirt. The word only occurs in two places: here, translated (A.V.) *gutter*, and Psa. xlii. 7 *waterspouts*, fistulæ (Vulg.). Vatablus renders it canales; *Junius*, emissarium; Poole, tubus aquæ; Bochart, alveus; Patrick, "Whosoever cuts off their *pipes of water*; or their cisterns into which the water fell." The Speaker's Commentary, "The *watercourse*—the only access to the citadel was where the water had worn a channel—some understand a *subterranean* channel."

On this point, however, the intuition of Kennicott is perfectly marvellous. He observes: "Most interpreters agree in making the word signify something *hollow*, and in applying it to water—so we have in Josephus (Ant. vii. 3.1) διὰ τῶν ὑποκειμένων φαράγγων—subterraneous cavities. Jebus was taken by a stratagem." He cites a similar occurrence from Polybius: "Rabatamana, a city of Arabia, could not be taken, till a prisoner showed the besiegers a subterraneous passage, through which the besieged came down for water." He adds, "This fortress of the Jebusites seems to have been circumstanced like Rabatamana, in having

also a subterraneous passage." Accordingly, he gives this as an amended translation:

"David said, Whosoever smiteth the Jebusites, and *through* the *subterraneous passage* reacheth the lame and blind."

Hence the conclusion is irresistible that the secret passage leading from the hill of Ophel to the Virgin's Fount is none other than the long-lost Tzinnor which Joab gallantly scaled on the way to fame.

Captain Warren's account of his own ascent is enough to convince us that it is extremely improbable, or rather impossible, that Joab ever climbed the rocky shaft without aid from within.

Both David and Joab were extremely fertile in artifices, and with the story of Rahab and Bethel in mind, we might well expect a helping hand would be found among the Jebusites and a large *bakhshish* given in return. Some one must have betrayed Jebus, and the preservation of Araunah after its capture, and his subsequent possession of great wealth, create an overwhelming suspicion that he was the man. England is prejudiced in his favour. Let some one at El Kuds decide.

The simplest explanation of one Hebrew word, followed by one of Captain Warren's remarkable discoveries, has enabled us to understand a most obscure passage in the Old Testament, and after 3,000 years to trace the very track by which the adventurous Joab gained entrance to Zion.

Who will say that the Palestine Exploration Fund has not done good work? Who will question about the Bible being the most accurate and truthful of all books?

Acra.

According to 1 Macc. i. 33, the city of David being rebuilt became the Acra, the adjacent temple site being therein called Mount Zion.

Afterwards, in Josephus, Acra (ἄκρα) seems to have been used as the name of all that part of Jerusalem which was south of the temple; and of that *alone*, for I am not aware of a satisfactory proof that any part of Jerusalem north of the upper city and west of the temple is ever referred to by Josephus as *Acra* or *the lower city*. He rather calls it the suburb = Parbar. (Ant. xv. 11. 5.)

The famous passage in Wars v. 4. 1 seems to be easily explained by this position of Acra, which thus has a *deep valley* on the outside.

The Tyropœon Valley seems to me to extend from about Robinson's arch southwards, dividing the eastern hill from Acra as defined above. The temple is on the third hill, "*naturally lower than Acra*" (see below), which hill was parted by a broad valley, not from Acra, but from the upper city = the other city, Ant. xv. 11. 5, in about the line of Wilson's Arch.

So far as I can see this is the theory of Olshausen (Thrupp, p. 403), and it is not to be "*easily overthrown.*"

The lowering of Acra named by Josephus has been a *crux*. In the passage above it does not seem to me that the filling up of the

Asmonean Valley has necessarily anything to do with the levelling of Acra. As to the latter, so different is the account of Josephus from that in the Maccab. that we are at liberty, if not bound, to reject both his statements, (1) that Acra was lowered—an exploit of which 1 Maccab. knows nothing. Indeed it is stated (xiv. 37) that Simon "placed Jews therein and fortified it (*Acra*) for the safety of the country and the city," and three years after, when, according to Josephus, the Acra had been levelled, Antiochus (xv. 28) alleged against the Jews, "Ye withhold Joppe and Gazara, with the *tower* (ἄκρα) that is in Jerusalem." It is not said in reply that the *tower* (*i.e.*, *Acra*) had been razed. And (2) that Acra was naturally higher than the temple hill, as inconsistent with such passages as 2 Sam. xxiv. 18, &c., and contrary to 1 Macc. vii. 32, 33; for Nicanor having fled into the city of David, afterwards went ὑψ (ἀνέβη) to Mount Sion. Josephus, on the contrary (Ant. xii. 10. 4), says "he went *down* from the citadel unto the temple" (αὐτῷ κατιόντι ἐκ τῆς ἄκρας εἰς τὸ ἱερόν). The passage is evidently both corrupt and wrong, yet it is used to show that the upper city or market-place was called Acra (Thrupp, p. 56), and also that the Acra was *above* the temple, and therefore to the *north* of it (Lewin, p. 325).

Though the northern position for the Maccab. Acra has been fixed upon to suit the statements of Josephus, who says that the Acra was higher than the temple, it fails to satisfy two other of his statements, (1) that "the temple was the highest of all the buildings, now that the Acra, as well as the mountain whereon it stood, were demolished;" and (2) that "the Asmoneans levelled the summit of Acre and reduced its elevation, in order that the temple might be seen above it in this direction."

Williams, taking no account of Ophel, states, "any site for Acra is *higher* than the temple site;" and the (E) position for Acra required no levelling for the latter reason, since the ridge slopes eastwards.

Only the *southern* position for Acra satisfies these two statements.

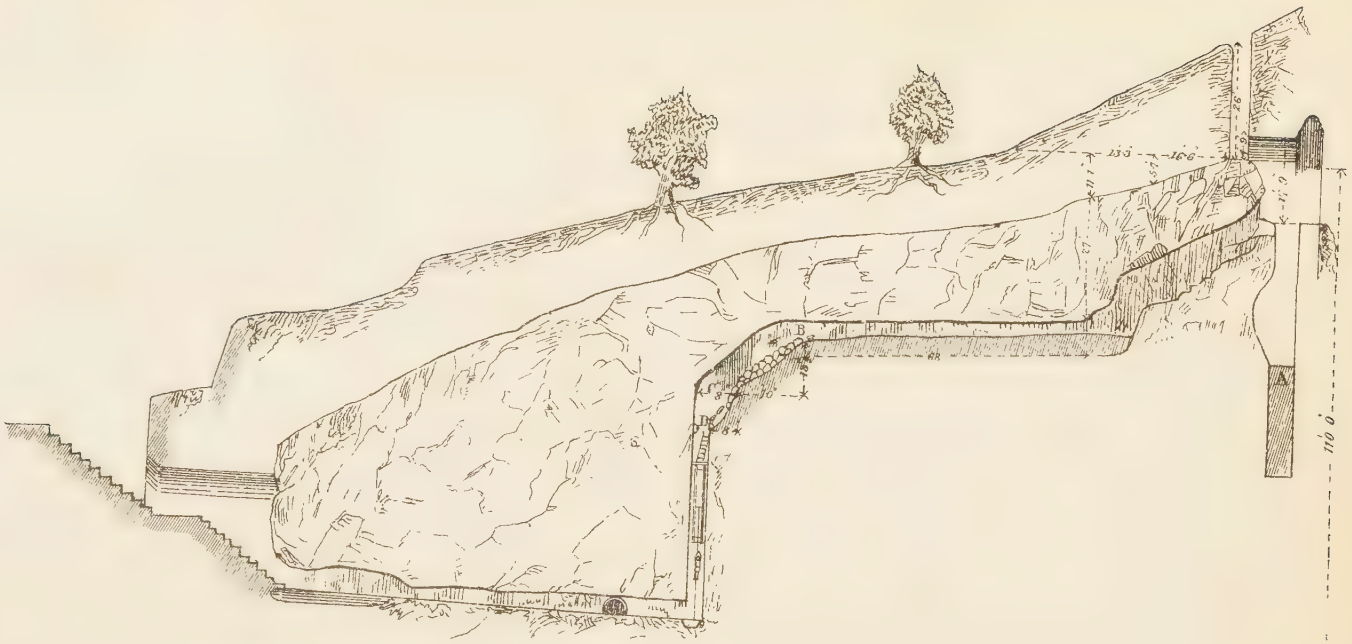
Possibly some little levelling may have taken place south of cisterns 7 and 8 on plan, Jer. Rec., opp. p. 8.

Further, Josephus seems to me to have been misunderstood by (1) its being overlooked, that "upper" and "lower" are only relative terms, and (2) by its being assumed accordingly that *lower city* throughout his writings must mean the same place.

(*a*) In Ant. v. 2. 2 the city of David is spoken of as ἡ κατύπερθεν πόλις; the city below, in the Valley of Hinnom, as ἡ κάτω.

(*b*) In Ant. vii. 3. 1, the city of David becomes ἡ ἄκρα (a term it retained till the time of Josephus); and the other part he names as before.

(*c*) Wars v. 4. 1. He divides the city into two parts, built on hills of different altitude, and so naturally calls one the upper city and the other the lower city. When he speaks now of the loftier south-west hill, he calls it ἡ ἄνω πόλις (adding that David called it φρούριον)—and the city of David being in comparison lower—he now calls ἡ κάτω πόλις. It



ROCK-CUT PASSAGE ABOVE VIRGIN'S FOUNT.

will be observed that while he applies the name ἄκρα to the upper city of David's siege, he tells us that David called the city which he subsequently built on the south-west hill, not ἄκρα, but φρούριον. ἄκρα is a fixed term, the *lower city* a variable term.

Virgin's Fountain.

(1) There is overwhelming evidence that the Virgin's Fountain is the *Enrogel* of Joshua. Biblical Dict., Ganneau, *Quarterly Statement*, 1870, p. 251.

(2) In 2 Chron. xxxiii. 14 it is *Gihon* in the Nachal.

(3) In Isa. viii. 6 it is the *waters of Shiloah* that go softly. Thrupp, arguing for another object, says (p. 140), "The water of Siloah could not with any propriety have been used as a symbol of the house of David had the fountain not been situate within the city." The stream, however, flowed from Zion, and by help of the Tzinnor, "it was the property of the city in the event of a siege," words applied by Thrupp to *his* fountain of Siloah.

As it watered the king's garden which was in the Nachal (Song of Sol. vi. 11), the stream might easily have been dammed up so as to make—

(4) *The king's pool* (Neh. ii. 14), or Solomon's Pool (Jos. W. v. 4. 2), unless the Fountain itself was so called.

As Adonijah was feasting near Enrogel, the Gihon of 1 Kings i. 33 could not be Gihon (2). Indeed, Thrupp says a more accurate rendering is, "Bring him *down*, and then lead him *up* to *Gihon*," which would exclude Gihon (2) as the scene of Solomon's anointing, but would allow of a position either north or (as I think) west of Zion, near the Valley Gate, at the *Dragon's* Spring, possibly near the position of the Serpent's Pool of Josephus, and the Fons Sion of Marinus Sanutus (Jer. Rec., p. 29).

May not the identity of Gihon (2) with Siloah (3) have led the Chaldaic Paraphrast, confusing the two Gihons, to translate Gihon by Siloah in 1 Kings i. 33 and 2 Chron. xxxiii. 14, and the Mishna to call Siloah, Gihon?

(5) The old pool (Isa. xxii. 11) or, at any rate, one just below in the Nachal.

(6) The brook that *overflowed* (2 Chron. xxxii. 4).

(7) Supposing *Joab's Well* to be a genuine name, we must allow that it deserved to be attached to Enrogel after his great exploit there.

Siloah, Siloam.

A thread of error may, I think, have been woven into the argument (*Quarterly Statement*, 1877, p. 199) through the assumption that "the Pool of Siloah is admitted to be the Pool of Siloam, so considered now." Thrupp endeavours to prove that the Pool and Fountain of Siloam were within the city.

On the assumption that one place only is referred to as Siloah or

Siloam in the Bible and Josephus, I still hold to the traditional site. But it seems to me that there are weighty reasons for concluding that three different places are thus alluded to :

1. The waters of Shiloah (Is. viii. 6). The whole import of the passage appears to me to make this the Virgin's Fount =(probably) the Pool of Siloam (John ix.).

2. The Fountain of Siloam (Josephus) = that so called now, the name passing down with water from (1).

3. The Pool of Siloah (Neh. iii. 15) = a pool within the city, near Robinson's Arch.

The fact that the present Pool of Siloam is just below the level of the aqueduct from the Virgin's Fount seems to make it certain (as suggested by Lieut. Conder) that both were made at the same time—*i.e.*, by Hezekiah.

This, therefore, is the pool that was made between the two walls (Neh. iii. 16; Isaiah xxii. 11; ditch=pool). But to have made this pool with the large one existing just below would have been labour lost. Therefore it seems neither of these was the Pool of Siloah (Neh.), which must accordingly be looked for elsewhere.

Lightfoot (Chron. 345) asserts that there is a distinction in the Hebrew between Siloah (Neh.) and Shiloah (Isa.), so slight, indeed, that previously he had overlooked it, but that it is recognised in the LXX. by their different translations.

This distinction seems also to be preserved in Josephus. He calls the *fountain* of Siloam Σιλωάμ, but in one passage he uses the word Σιλοᾶ. He says (W. ii., 16. 2), "The Jews persuaded Neopolitanus to walk round the city as far as Siloam (μέχρι τοῦ Σιλοᾶ). So he walked round and then *went up* to the *temple*."

Ecclus. xlviii. 17. "Ezekias fortified his city and brought in *water* into the midst thereof." Thrupp (101) reads εἰσήγαγεν εἰς μέσον αὐτῶν τὸν Γώγ, and adds Γώγ may be another form for Γιών. Alex. MS. reads (as Eng. V.) not Γωγ but ὕδωρ.

The Mishna say, "Now Siloam was in the midst of the city."

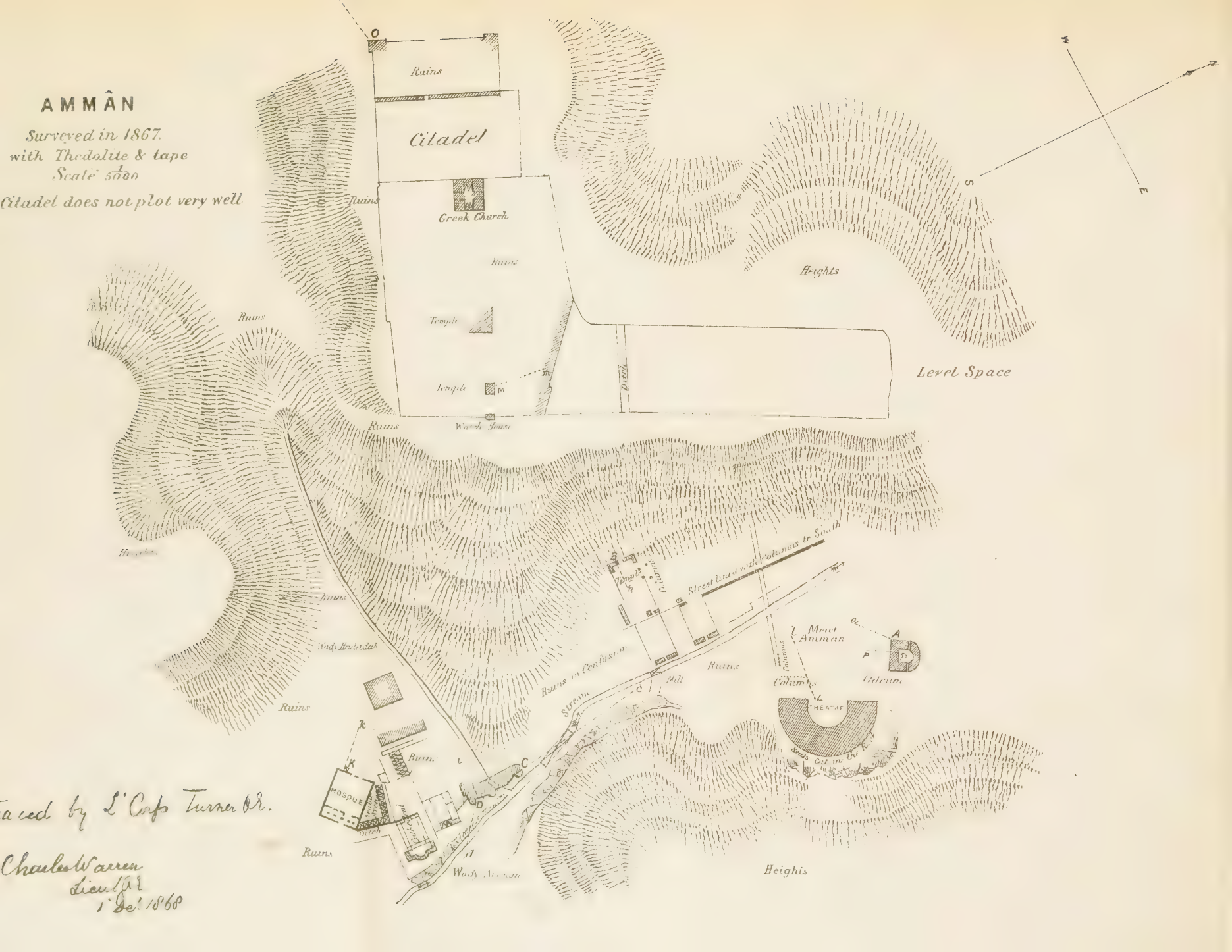
The position of the present (so-called) Pool of Siloam hardly suits these passages, but the former existence of a pool (called Siloah, Neh. Σιλοᾶ Jos.) in the Valley of Hinnom somewhere near Robinson's arch would very well suit the walk of Neopolitanus and do away with certain difficulties.

It may be the *lower pool* (Isa. xxii. 9), formed by the junction of waters brought down the valleys running from the Damascus and Jaffa gates—

(*a*) By a conduit from the north;

(*b*) By a conduit from the upper outlet of Gihon. "Hezekiah brought it straight down to the *west* side of the city of David." (2 Chron. xxxii. 30). The present Pool of Siloam cannot so well be said to be on the west side of the city of David, as on the south.

(2) It enables us to place the sepulchres of David in the position



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Charles Warren
Lieut RE
1 Dec 1868

approved by Major Wilson, not so far down in the Valley of Hinnom as we must do if the present Siloam is Siloah.

(3) We may also draw the line of the wall of Nehemiah (as proposed by Lieut. Conder) *across* Ophel, if such be necessary, instead of bringing it down to the present Siloam.

This doubt as to the exact position of the Pool of Siloah (Neh.) of course unsettles the position I endeavoured to fix for the sepulchres of David. Thrupp (p. 164) just notices a legend placing the tomb of the kings near the fountain of Siloam.

THE TWO WALLS.

1. As the wall (2 Chron. xxxiii. 14) was an additional wall in the Kidron Valley, the words of Josephus, διὰ καρτερᾶς φάραγγος, might be applied to this part, and so on this side Zedekiah may have escaped.

2. Or, since the ditch or pool of Hezekiah (Isa. xxii. 11) might have to be defended by a new fortification, two walls—the forerunners of the *long walls* of Athens—may have been run down to the present Pool of Siloam, and between them the escape made.

3. Or, since the diverting of the waters of Enrogel would prevent the easy irrigation of the king's gardens in the Nachal, fresh gardens may have been made in the Valley of Hinnom and Tophet, use being made of the water from the lower pool (that of Siloah), placed as above (3). The escape might then have been made by the fountain gate and through these gardens. W. F. BIRCH.

RABBAH OF THE CHILDREN OF AMMON.

THE Rabatamana of Polybius, afterwards Philadelphia, now Ammàn, deserves special notice.

A. It was situated in the *plain* (*mishor*) east of the Jordan, and consisted of two parts, the city and the citadel. "The city lay in two narrow *valleys*; these uniting become one, which has a good supply of water and pools large and deep enough for a swim" (Q. S., 1872, p. 65).

See Jer. xlix. 3, 4. "Cry, ye daughters of Rabbah. . . . Wherefore gloriest thou in the *valleys*, thy flowing *valley*" (*emek*, in each case).

Crowning the *height* (? = Hebr. TZUR = rock) on the north-west, the shoulder between the two valleys, rose the citadel, holding a commanding position over these *valleys* (= *emek*) and the country round (= *mishor*)," *id.* 65.

How perfectly do these characteristics suit Jer. xxi. 13, 14 (*emek* 5, above). Our *key* fits exactly, and makes it certain that the prophet refers to Rabbah. Besides (Jer. xxi. 13), "Who shall come down to us?" is the very question repeated (Jer. xlix. 4), "Who shall come unto me?" and the king of Babylon was advancing against both Rabbah and Jerusalem (Ezek. xxi. 20, 21) though he took the latter first.

Jeremiah prophesies (xxi. 12-14) that the gate of mercy was still open to Jerusalem, but not to Rabbah.

Thus the *topographical key* is useful in rightly applying misapplied prophecy.

B. Rabbah, as Polybius relates, was taken (B.C. 218) through its Tzinnor being revealed to the enemy.

In 2 Sam. xii. 26-28, "Joab fought against Rabbah of the children of Ammon, and took the royal city. And Joab sent messengers to David, and said, I have fought against Rabbah, and *have taken the city of waters*. Now therefore gather the rest of the people together, and encamp against the city and take it."

Some think the words in italics should be translated, "*I have intercepted or cut off the waters of the city.*" Houbigant gives, it "*et aquas ab urbe jam derivari.*" This agrees with Josephus, who says, τῶν τε ὑδάτων αὐτοὺς ἀποτεμνόμενος, and adds that the Ammonites besieged in the citadel "depended only on one small well of water, and this they durst not drink of too freely, lest the fountain should entirely fail them."

Joab might have been poetical, but it was more fit in a military despatch to say, "*I have cut off the waters which supplied the town*" (Junius) than to describe the "royal city" as "the city of waters."

Joab could never forget the Tzinnor of Jebus. It is not likely, then, that *he* would be over-hasty to say he had cut off the waters from the city, merely because he had possession of the stream or pool in the valley, but if there was a *Tzinnor* or *gutter* at Rabbah, and if with or without the help of some unpatriotic Ammonite (? Shobi, the son of Nahash) Joab found it and stopped it, he might safely speak of an impending surrender in his pressing message to David.

The words of Josephus are just the account we should expect from a person knowing but a part of the true case.

Here is a nice bit of excavation for our American cousins. "Biblical discovery in Philadelphia" would do for a sensational heading. With a Tzinnor found at Zion, another cropping up at Rabbah, I would ask, "What next?" Was not there a Tzinnor at Samaria, to enable it to endure a three years' siege?

W. F. Birch.

NOTES ON THE POSITION OF TARICHEÆ.

The following notes on the position of Tarichæ may prove of value to those interested in the topography of the Sea of Galilee. The city, though not noticed in the Bible, appears to have been only second in importance to Tiberias, and was regularly besieged by the Romans. Tarichæ is apparently not noticed in the Talmud, and thus it is from Pliny and from Josephus only that we obtain any indications of its position.

Like Tiberias, Tarichæ was situate on the shore, with cliffs rising above it. It was washed on some sides by the sea, and strongly fortified on the land side. Before the city there was a plain. (B. J. iii. 10. 1).

One further important indication we obtain from the Life of Josephus, in which he says that Tarichеæ was thirty furlongs from Tiberias (Vita, 32).

The town was walled, and contained a hippodrome. Its position was one of special strength, because surrounded partly by the sea, so that during the sieges the place could never be completely invested, and provisions and reinforcements could be—and were—brought into it by sea.

Tarichеæ was apparently, as will be seen, in sight of a certain place called Sinnabris. This is another most important indication. The western shore of the Sea of Galilee is bowed outwards, and presents a steep wall of precipice above a narrow shore line. Tiberias lies in a recess, and cannot be seen from the south end of the lake west of Jordan; while the line recedes yet further in the neighbourhood of Mejdel.

Sinnabris is also mentioned as being thirty stadia from Tiberias (B. J. iii. 9, 7), and an important statement is made by Josephus that the Roman camp there constructed could "be easily seen by the innovators."

The name Sinnabris occurs in the Talmud, under the form Sineberii, as that of a place in Galilee, but without any notice of its position. The name was heard first by Rabbi Schwartz as still existing near the Sea of Galilee. In 1872 I received from the Rev. Mr. Zeller, of Nazareth, a list of villages and ruins in Galilee, and to my delight found the name *Sin-en-Nâbreh* put down by the native scribe as that of a place near Tiberias. I pointed this out to Lieut. Kitchener, and he was fortunately able to ascertain the exact position of the place and to verify the existence of the name among the peasantry.

Sinnabris has thus been fixed at a ruin on the road leading from Tiberias to Beisân. It is close to the ruined site of Kerak, and west of the road, being situate on a spur of the cliff, while a wall runs from it to the sea (see P. E. F., *Quarterly Statement*, July, 1877, p. 120).

The ruin of Kerak appears (as seen from the hills in 1874, and as described by Lieut. Kitchener) to have been that of a considerable town. It consists of a large plateau, partly artificial and projecting into the lake. Only a narrow entrance is left on the west by which the plateau could be reached; the lake and the Jordan surround it on the other sides, and a broad waterditch forms a further protection to the site.

These two sites, Sinnabris and Kerak, which are thus close together, are just about thirty stadia from the ruins of ancient Tiberias, which we learn from the Talmud did not exactly occupy the same position as modern Tiberias. (Tal. Jer. Megilla, i. 1.)

With regard to the identification of Sinnabris we can have no doubt. The name exists, the distance agrees, the direction is that in which the thirty stadia should be measured—namely, on the way from Beisân to Tiberias, for Vespasian, when camping at Sinnabris, was advancing from Scythopolis or Beisân to Tiberias.

The site cannot, however, be said to be "easily seen" from Tiberias,

as a wall of rocky cliff projects between the two. Thus we are led to suppose that it was the "innovators" of Taricheæ—the other revolted town which Vespasian was advancing to attack—who were overawed by the camp at Sinnabris.

The site of Kerak in every way agrees with the description of Tarichеæ by Josephus. It is a large site, and was evidently once a place of importance. It lies beneath the cliffs, and is washed by the lake. It has on the south a plain—the broad, flat Jordan valley, and it is thirty stadia from Tiberias.

It has, however lately been proposed to look for Tarichеæ north of Tiberias. Major Wilson places it at Mejdel, which is rather more than three miles (or not more than twenty-eight stadia) from Tiberias. Lieut. Kitchener proposes the ruin of Kuneitriyeh ("the little arch"), which stands on a hill-top, with a steep slope descending into the lake, and which is only two miles, or sixteen stadia, from Tiberias.

Neither of these sites seem to me admissible, for the following reasons, which I submit to the consideration of the readers of the *Quarterly Statement*:—

1st. The situation does not agree in either case with the description of a site washed by the lake on several sides and situate at the bottom of a mountain.

2nd. In the case of Kuneitriyeh the distance does not agree with that noticed by Josephus.

3rd. We have a definite statement of Pliny's that Tarichеæ was at the south end of the lake, or just where the site of Kerak is now found. (See *Quarterly Statement*, October, 1877, p. 181.) Pliny is an authority who cannot be lightly set aside without some very strong counter evidence.

4th. It seems further clear from the narrative of Josephus that Vespasian in his attack on the revolted cities Tiberias and Tarichеæ established two camps, one against the one, the other against the other. Sinnabris was his first camp, and his second was at the hot baths south of Tiberias (B. J. iv. 1, 3). Both of these sites are well known, and both are south of Tiberias. There is in the narrative of Josephus no account, so far as I have been able to find, of any third camp north of Tiberias. The second camp—that at the hot baths—is described as being between Tarichеæ and Tiberias (B. J. iii. x. 1), and thus the words of Josephus fully agree with the statement made by Pliny that Tarichеæ was south of Tiberias. The distance and the character of the site, with the proximity of Sinnabris in full view, all seem to point definitely to the important site of Kerak as being the ancient Tarichеæ. I am not aware that I have omitted anything which could lead to a contrary conclusion, for Vespasian was evidently well able to leave Tarichеæ in his rear in advancing on Tiberias after he had established a strong post in the commanding situation occupied by Sinnabris as now identified.

C. R. Conder.

THE ITINERARIES OF OUR LORD.

THE following is a scheme of our Lord's travels, derived from a careful and repeated examination of the Gospels. The capitals denote that this is His first coming to the place during the ministry as far as appears from the narrative. J. means a direct journey; S. a more or less lengthened sojourn; T. an itinerating sojourn, or tour; V. a voyage.

I have added a few references in the case of the least definite paragraphs—not full ones, but just enough to indicate the allusion. No. 7 is specially interesting as informing us of a long day's journey; and Nos. 14, 18, 21, are so on account of the problems they present. "Bethania," it will be observed, denotes Bethany by the Jordan, the Bethabara of our English version.

I have ventured to insert Bethany in No. 24, believing that Luke x. 38-42 refers to this visit to the neighbourhood of Jerusalem.

1. BETHANIA and neighbourhood to CANA. J.
2. Cana to CAPERNAUM. J.
3. JERUSALEM and Judæa. S. Passover.
4. Jerusalem to SYCHEM. J.
5. Sychem to Cana. J.
6. Galilee; NAZARETH, &c.; with Capernaum as head-quarters. T. Luke iv. 14 to vii. 10, and parallels.
7. Capernaum to NAIN. J.
8. Galilee; Capernaum as head-quarters. T. Luke vii. 18 to viii. 21, and parallels.
9. Capernaum to GADARA. V.
10. Return. V.
11. As No. 8. Matt. ix. 10 to xi. 1; Luke viii. 41 to ix. 6. T.
12. Jerusalem. S. A Feast. John v.
13. Capernaum to near BETHSAIDA. V. Passover. John vi., and parallels.
14. Return. V.
15. As No. 8. John vii. 1; Mark vi. 56 to vii. 23. T.
16. To "the coasts of TYRE and SIDON." T. Mark vii. 24, and parallels.
17. To "the coast of DECAPOLIS." T. Mark vii. 31, and parallels.
18. From the east of the Lake to between MAGDALA and DALMANUTHA. V. Mark viii. 10, and parallels.
19. From the west of the Lake to near Bethsaida. V.
20. Thence to the "villages of CÆSAREA PHILIPPI." J.
21. Thence to the MOUNT OF TRANSFIGURATION—*i.e.*, HERMON. J.
22. Thence to Galilee. J. Mark ix. 30.
23. As No. 8. Matt. xvii. 22 to xix. 1; Luke ix. 43 to x. 16. T.
24. Jerusalem and BETHANY. S. Feast of Tabernacles.
25. St. Luke's long episode. T. Places for the most part unknown.
26. Jerusalem. S. Feast of Dedication.

27. To Bethania. J. John x. 40.
28. To Bethany. J. John xi. 17.
29. To EPHRAIM. J. and S. John xi. 54.
30. Ephraim to JERICHO. J.
31. Jericho to Bethany. J
32. Bethany by BETHPHAGE and the MOUNT OF OLIVES to Jerusalem. The Triumphal Ride. T. H. GUEST.

ON THE SITE OF AI.

I HAVE long felt insuperable difficulty in accepting as the site of Ai the spot known as et Tel. The fact that it is due south of Beitin, or Bethel, seems to me quite decisive against it. Mr. Birch, in the July *Quarterly Statement*, while advocating another southern site, quotes the authority of Jahn to show that orientals call any wind an east wind that blows from any point on the eastern side of a meridian. But I fail to see the bearing of this on the question. We have to do with geographical statements of a very distinct nature (Gen. xii. 8; Josh. vii. 2)—statements expressly intended to make themselves intelligible. And it is important to observe that the historical writers of the Old Testament do not as a matter of fact use the term קֶדֶם, east, in the loose popular sense above mentioned. The utmost latitude we can assume in interpreting their designations of this and the three other cardinal points of the compass must be, I think, limited to within four points, right or left. May I venture to plead for another site to be identified with the Ai of Abraham and Joshua, and to examine the case for Rummon, the "Rock Rimmon" of Judges xx. and xxi.?

(1) Of course there is at the outset the obvious objection of the total difference of name. But is this fatal? Dean Stanley (as quoted with approval by Lieutenant Kitchener in the January *Quarterly Statement*) did not hold such an objection decisive against Michmash.

Indeed I am not sure that a different name has not been occasionally a veil to obscure what lies before our very eyes; and I may just refer in passing to Mr. Birch's exhaustive article on the identification of Nob (Jan., 1877) as a parallel instance to the present identification of Ai.

(2) We must observe that the two names Ai and the Rock Rimmon are not contemporaneous, or used by the same writer. The two Rimmons of Joshua are unquestionably distinct from the modern Rummon and the Rock Rimmon. The latter appears in the last two chapters of the Book of Judges, some time after the utter destruction of Ai, but while Phineas, the son of Eleazar was still alive (xx. 28).

(3) The name of Ai, "a heap of ruins," was one not unlikely to be dropped. There were many spots with the same name. Dean Stanley mentions three ("Sinai and Palestine," p. 119, note 4), and there was one beyond the Jordan (Jer. xlix. 3). And in modern times we know of Haiyan, Haiyeh, and Haiy, hereabouts (Lieut. Kitchener, April

number). After the conquest, moreover, there would be many a "Ruined Heap," and perhaps the nation would gladly lay aside the memory of that one which was the scene of their first defeat and of an inglorious victory. The name of the "Pomegranate Rock" would readily offer itself to describe the spot.

(4) It is in favour of this view also that the name Ai no more appears in history, and very doubtfully, if at all (Isa. x. 28) in prophecy, until the times of the restoration, when man's knowledge was derived from books, not from tradition or usage, and antiquarian research was the fashion of the age.

Thus far I have been trying to anticipate some of the principal objections to the view. May I now point out how exactly it meets the requirements of the narrative?

(1) It is due east from Beitîn, and thus corresponds exactly to the description in Gen. xii. 8; Josh. vii. 2; as well as Josh. viii. 9, to be referred to by-and-by.

(2) In Josh. xii. 9, Ai is described as beside (Heb. מִצַּד) Bethel. "The idea is that of near distance, of being just *off from*, the *prope abesse ab* . . . . aliquâ re." (Gesenius, Gram. p. 220).

(3). In Josh. vii. 2 it is beside (Heb. עִם) Bethaven. This indication is of little value until we know where Beth-aven was. But, taking it as identified with Deir Diwân, the description is sufficiently near. But the passage should probably be rendered thus: "And Joshua sent men from Jericho to Ai, which, *together with* Bethaven, is on the east side of Bethel." The Vatican Septuagint omits the clause, "beside Bethaven," altogether.

(4) The identification of Ai with Rummon renders the narrative of the capture of the place very clear and intelligible. The Israelites are encamped in the "plain" of the Jordan, the עֲרָבָה of viii. 14, and close by Jericho, vii. 2.

An army about to attack Rummon would probably make its way along the road which runs from Ain Dûk to et Taiyibeh, and so make its appearance on the north of the threatened place. Now we find (viii. 11) that Joshua did lead his main army to a camp on "the north side of Ai, with a valley (Heb. גַּיְא, ravine) between them and Ai. The Septuagint reads, "and as they were going they came opposite the city on the east," a clause which is strikingly in harmony with the supposed route. The ravine may be identified with the upper part of Wady Rubeiyeh, the encampment being about south south-east of et Taiyibeh.

During the night Joshua had prepared his ambush, which (v. 9) "abode between Bethel and Ai, on the west side of Ai." Exactly so situated we find a wady above the Wady Es Sîk, and in continuation of it, under the names of Wady El Muteh and Wady El Ain. Here they were bidden, while scattering themselves as far as necessary for concealment, not to go far from the city (v. 4).

For this ambush must do the work of destruction. The main army came forth only to show themselves, and then by a feigned retreat to challenge the people of Ai to a second pursuit.

As soon, then, as the latter perceived that the Israelites were gone by the way they came, into the midst of the valley (Heb. עֲמֶק, v. 13), the wide lower land over which they had passed, they started in pursuit. There was a feint of battle "before the plain" (Heb. לִפְנֵי הָעֲרָבָה), in immediate sight of the open expanse of the low lands by the Jordan. The Israelites made as if they were again beaten, and fled by the way of the "wilderness." The sequel is well known, and further details have little to bear upon our present question. Ai was made "an heap (Heb. תֵּל) for ever, even a desolation unto this day." And if Rummon be the spot, its very name is gone.

I fear this article is too long already, and designedly omit, on this account, the discussion of any further collateral and incidental questions.

T. H. GUEST.

ON THE SITE OF KIRJATH-JEARIM.

THE exact position of Kirjath-jearim is of great importance for the right understanding of several Biblical narratives. Fortunately we have several statements as to its position relatively to known places. Thus Jud. xviii. 12 tells that it lay *east* of Beth-shemesh; and from 1 Sam. vi. 21, vii. 1, we learn that in relation to that same place it lay "up," and was on, or by, a hill (Gibea). These indications lead us to look for it at the head of the great valley of Surar, in which Beth-shemesh lies.

Chesalon (Kesla) lies up eastward from Beth-shemesh, and we know from Josh. xv. 10 that Kirjath-jearim must be sought still farther east, or *south*-east.

Again, Psa. cxxxii. 6, though obscure, manifestly implies that the ark while at Kirjath-jearim, or when on its way thence to Sion (2 Sam. vi.), was near Bethlehem Ephratah.

Further, the description in Josh xv. 8-10 of the boundary of Judah tells us that it ran up from the ravine of Hinnom to the top of the mountain lying west of that ravine and at the north end of the valley of Rephaim; that thence it reached along from the top of the ridge to the fountain of the water of Nephtoah, and went out to the cities of Mount Ephron, and reached to Kirjath-jearim, whence the border curved westward to Mount Seir, and passed over to the north shoulder of Har Jearim, which is Chesalon.

Of this boundary line the extremities, Hinnom and Kesla, are known.

A curious feature of it appears in Josh. xviii. 15, where the *southern* boundary of Benjamin (and *northern* of Judah), while traced from the west eastwards, is said to go from Kirjath-jearim *westward*. The cities

of Mount Ephron, or the last of the group, must therefore have lain to the south or south-east of Kirjath-jearim. The line could not have gone to the *north-west*, or it would have formed the *western*, not the *southern* boundary of Benjamin, and the borders of Judah and Benjamin would have touched to the west of Kirjath-jearim, contrary to Josh. xviii. 14.

Just such a line would be described if we trace the boundary of Judah from the valley of Hinnom, due westward, and not up by the north-west side of Jerusalem, sweeping around the valley of Rephaim so as to enclose it, coming thus near *Rachel's Sepulchre* (1 Sam. x. 2), and thence westward a little, then stretching back in a north-easterly direction towards Ain Karim, and so out westward by Kesla.

Or it might be drawn, I think, so as to exclude the valley of Rephaim, giving that to Benjamin. The boundary would then run by the Wady el Werd, and Rachel's tomb would be literally on the border of Benjamin.

The identification of Lifta with Nephtoah is no doubt conclusive against such a proposal, if it could be relied on. But does not Lifta rather represent Eleph of Josh. xviii. 28? And though the proposal to identify Nephtoah and Netophah has been condemned, there is not a little to be said for it. Nephtoah is only named in Joshua xv. 9, xviii. 15, while Netophah does not occur earlier than 2 Sam. xxiii. 28, 29. We read only of "the shining of the water of Nephtoah," not of a town of that name. There was a Wady Beth Netophah, and presumably "a water" in the wady of the same name. Netophah was applied to a considerable district: there were "villages of the Netophathites" (1 Chron. ix. 16, Neh. xii. 28). It lay not far from Bethlehem (1 Chron. ii. 54, Neh. vii. 26, Esd. v. 17, 18); and the form of the name Anetophah has been recognised in Autubeh, to the north of Bethlehem, while Beth-Netophah has been identified with Beit Nettif some miles to the west. Notably the name of Netophah is found in the Greek both as Νετωφα and Νεφωτα, illustrating the very transposition of consonants required; while the change of *Teth* for *Tau* in the Hebrew cannot be accounted of much moment, considering the age of the record in Joshua, and that the "t"—sometimes "th"—disappears altogether in "Nehopas," yet another form of Netophah.

As to the Valley of Rephaim, it is not certain where precisely it lay, whether to the north or south of the boundary line, though probably to the south. From 2 Sam. xxiii. 13 we gather that at least its southern extremity lay west of Bethlehem, and so interposed between it and Adullam. The statement of 1 Sam. x. 2 may perhaps thus be explained; it is certainly precise as to the sepulchre of Rachel being on the border of Benjamin, while the description in Gen. xxxv. seems to fix it pretty conclusively. It would scarce be counted strange if the boundary here made even some detour to enclose the birthplace of Benjamin in the inheritance of his children.

May not *Ain Karim* preserve the sound if not the site of Kirjath-jearim. It is written in Ezra ii. 25, *Arim* (possibly that is the correct reading in Josh. xviii. 28, where, as in 1 Sam. vii. 1, we find it linked

with a *Gibeah*). When the "city of the woods" became a ruin, the "well" would remain; and as the neighbouring Beth-shemesh became *'Ain Shems*, Kirjath 'Arim would become Ain Kārim. That the *'Ain* should take this *Caph* sound is nothing unusual. The proposed identification of Ain Karim with *Rekem* is a possible one, no doubt; but, if accepted, it would surely throw the boundary of Benjamin too far south to admit of locating Kirjath-jearim at Kuriet el Enab. And as the proper name of that place is simply *Kuriet* (*Quarterly Statement*, 1876, p. 80), it is more probably Kirjath of Josh. xviii. 28. Ain Karim has been identified also with Kerem of LXX., Josh. xv. 59, and with Bethcar, so that it seems yet undetermined.

Since the probability of Ain Karim being the site of Kirjath-jearim had occurred to me, I have met with the interesting announcement in the January number of the *Statement*, p. 19, of the discovery of *Khürbet 'Erma*, "a ruin on the brink of the great valley two miles south of Kesla or Chesalon." *Here may be the true site of Kirjath-jearim;* and the boundary may not have "reached along" so far north as Ain Karim. This is a matter to be judged of only on the spot, or by one intimately acquainted with the contour of the ground; but I venture to suggest that the boundary line should go thus, much farther south than is usually drawn, by the Wady Bitir down into the Wady Surar.

Such a line would fit the Biblical narratives. The men of Beth-shemesh would send the ark up the valley eastward, as its easiest road back to Shiloh. There is no trace of any road ever having led over to Kuriet el Enab. When, after its resting there, it was removed to Sion, it would pass not far from Ephratah (Psa. cxxxii. 6), and of it, as there, David must have known as a boy at Bethlehem, and so would naturally describe one going out to seek the lost ark coming on its track, so to say, "hearing of it" there. Again, it is more than probable that the gathering of Israel to *Mizpeh* (1 Sam vii.) was to the neighbourhood of the ark; that this was the place where Samuel judged Israel, and where Saul found him in the land of Zuph, whence he returned by Rachel's sepulchre (1 Sam. ix. 11, 25; x. 2).* *Might not this be recognised in Sôba?* Placing Mizpeh here, we could better understand the story of Israel's victory when they drove the Israelites to below Beth-car. Beth-car (or Bethchor) seems to be identified in the narrative with "Shen" (1 Sam. vii. 11, 12); for which we should rather read Ha-shen, probably for Ashan. The LXX. read Yasan, and the Peshito, Syriac, and Arabic versions render both words (Smith's Dictionary) by Beth-jasan. That they were two names for one place, or the names of places so close as to be practically one, is also rendered more than probable by their conjunction in Chor-ashan, 1 Sam. xxx. 30, as a district not far from Ziglag, somewhere south of Beit-jibrin and east of Gaza. If Ha-shen is the Ashan of Josh. xv. 38, this must have been its locality. If the defeated Philistines were

* Compare 1 Sam. i. 1, where we have Zophim and Zuph connected with Ephrath in Samuel's ancestry. The frequent connection of Mizpeh and Zophim or Zuph is well known.

chased down the valley past Gath, Ebenezer, which was set up between Mizpeh and Beth-car, might be sought for in that neighbourhood; and the locality of the earlier battle, when "the ark of God was taken," would be fixed thereabouts, for the Israelites pitched in Ebenezer (1 Sam. iv.) and the Philistines in Aphek.

This suggested removal southward of all those scenes in Samuel's life which follows the abandonment of Neby Samwil for Sôba as the Mizpeh of 1 Samuel (not the Maspha of later times) seems to accord better, not only with these narratives, but also with vii. 16, as the places of judging are more equally distributed; with xv. 12, which implies that Samuel's house was not very far from Carmel; with viii. 2, as his sons at Beersheba were not so removed from him as otherwise might seem; and we would thus understand why David clung so tenaciously to a neighbourhood, hostile and treacherous to him (as Keilah), because of Samuel's frequent presence there.

July, 1878. ARCHIBALD HENDERSON.

NOTE ON GAZA.

WHILE the Survey was being carried on from Gaza three sunken pillars were found, marking the angles of a racecourse or exercising-ground for horses, called Merdân ez Zeid. It was situated to the east of the town, in the level country beyond el Muntar, and is supposed to have been laid down by the Saracens about 700 years ago.

The pillar at the south-west corner was found to bear an inscription; it was of grey granite 18 inches in diameter. The inscription was considerably worn by time, and partially covered by the ground.

Mr. W. D. Pritchett has lately informed me of the discovery of a fourth pillar, exactly completing the rectangle, but only showing a few inches above the ground after the winter rains, and also inscribed.

The letters were filled with a red pigment, of which traces remain throughout. The rugged line shows where the stone was broken off with the portion probably bearing the date.

The inscription is 14½ inches long by 12 high.

M. Clermont Ganneau, to whom this inscription has been submitted, reads it as follows:—

\+ τοῦ κυρίου ἡ γῆ καὶ τό
πλήρωμα αὐτῆς
ἐπὶ Ἀλεξάνδρον
διακόνου ἐπλα=
κώφη τὰ ὕδε(α)-(ἕ=)
—
τους χμ περιτίου

He remarks: The first two lines appear to belong to a religious formula, a Biblical text; it is found in the commencement of Psalm xxiv., "The earth is the Lord's, and all that therein is." The inscription gives the exact text of the Septuagint version.

The rest of the inscription relates to a work done under the Deacon Alexander, the facing with stones of the groundwork of some monument.

An inscription found at Ayûn, in Nabatea, mentions an exactly similar work employing even the same word ἐπλακώθη, meaning "has been faced." The modern Arabic term Belàteh, meaning "to pave with flags of stone," is in common use among the Arabs. The inscription is dated of the year 600, in the month Peritios (February), dating from a local era much used at Gaza, and employed in many other inscriptions of that place.

It is possible that the date may be read of the year 640. In the first case, the date $\overline{\text{XM}}$, where the M is not a numerical figure, but the initial of the word μηνός = month.

In the latter case, the superimposed line would extend over the $\overline{\text{XM}}$, forming one date.

As there is no sign of this horizonal bar this must remain an open question for the present.

M. Ganneau also remarks on the peculiar form of the Alpha in Ἀλεξάνδρον and in διακονου.

H. H. K.

THE GERMAN ASSOCIATION FOR THE EXPLORATION OF PALESTINE.

We have received from Herr Baedeker the first number of the Journal of the new German Association, with a copy of their rules.

The Journal opens with a preface written by Professor E. Kautzsch, in which the writer, after thanking the supporters of the undertaking, and explaining the necessity of establishing a German Society for the Exploration of Palestine, gives a sketch of the origin of the new Association.

It was in the summer of the year 1876 that Dr. Zimmermann, Dr. Socin, and Professor Kautzsch met together to consult on the best way of founding such a society. It seemed to them that the co-operation of influential men might be best obtained by personal and individual effort in introducing the subject by letter. This was accordingly done. The answers received proved more encouraging than was at first anticipated. A year was spent in preliminary arrangements, and on September 28th, 1877, the Society was at last definitely constituted. At a meeting held for the purpose a General Committee was elected, rules and statutes were read and approved, and an Executive Committee was chosen from the general body.

The following is a list of the General Committee:—Baron von Alten, Herr Karl Baedeker, Dr. A. Berliner, Dr. A. Brüll; Herr Brüning, German Consul-General in Syria; Dr. F. Delitzsch, Dr. O. Fraas, Rev.

C. Furrer, Dr. J. Gildemeister, Herr Guthe, Dr. E. Kautzsch, Dr. O. Kersten, Dr. H. Kiepert, Prof. A. W. Koch, Field-Marshal Count von Moltke; Freiherr von Münchhausen, German Consul in Jerusalem; Dr. F. W. M. Philippi, Rev. D. Reinicke, Dr. C. Sandreczki, Herr C. Schick, Dr. A. Socin, Dr. F. A. Strauss, Dr. Ph. Wolff, Dr. C. Zimmermann.

It will be remarked that the list is a tolerably representative one. It includes, besides the honoured name of Von Moltke, those of many travellers and writers on Syria familiar to the readers of the *Quarterly Statement*, such as Freiherr von Münchhausen, German Consul in Jerusalem, Dr. Sandreczki, Herr Schick, Dr. Socin, and Dr. Zimmermann, besides other names familiar to those who read German contributions to Biblical illustration, such as Von Alten, Baedeker, Kiepert, Fraas, &c.

The Executive Committee consists of:—Herr H. Guthe, Dr. E. Kautzsch, Dr. O. Kersten, Dr. Albert Socin, Dr. C. Zimmermann.

Herr Carl Baedeker is publisher and treasurer. Dr. Kautzsch is editor. There are at present about 186 members.

The rules state that the object of the Society is to promote the scientific exploration of Palestine in all branches of science, and to create a more general interest in the work.

The object of the Society is to be attained by:—

1. The publication of a Journal.

2. Scientific research in Palestine itself.

The Journal is to appear quarterly, or, in double parts, half-yearly. Its contents are to be:—

1. Scientific discussions on topographical, ethnographical, natural history, historical and archæological questions connected with the exploration of Palestine and the neighbouring countries so long as they promote a knowledge of the Bible.

2. Summaries and reviews of home and foreign literature bearing on the subject.

3. Statistical and political information on the present state of modern Palestine.

Scientific research in Palestine itself will be accomplished:—

1. By union with Germans settled in Palestine to obtain the benefit of their services in carrying out the objects of the Society.

2. By urging travellers in Palestine to take a scientific interest in certain definite questions.

3. By the accumulation of means for independent expeditions to Palestine in the name and at the cost of the Society.

Members of the Society to subscribe ten marks (10s.) and receive the Journal of the Palestine Association gratis. Larger subscriptions are much wished for to enable independent expeditions to be sent out.

The business of the Society to be managed by a Committee of at least eighteen members. For all important business, and especially for the expenditure of money, except office and correspondence expenses, a resolution of the General Committee is necessary. The conduct of current work and the execution of the resolution of the General

Committee are entrusted to an Executive Committee of five members. The responsible editor is necessarily a member of the Executive Committee.

The officers of the Society perform their duties gratis, and office and correspondence expenses are charged to the funds of the Society. The editor only is to receive remuneration for his trouble, the amount to be fixed by the first Ordinary General Meeting.

The Society holds a General Meeting at least every other year, if convenient, in connection with the German Oriental Society. Members present at the meeting have the power, by a majority of two-thirds, of passing resolutions which are binding on other members of the Society. The General Meeting appoints Members of the General and Executive Committees.

Leipzic is selected as the home of the Society and the place of publication of the Journal. The editor is not obliged to live in Leipzic.

The Executive Committee publish a statement of the business and of the accounts in the first number of the Journal in each year. Accounts to be audited by two auditors, selected from the General Committee by the Executive Committee.

Subscriptions to be paid, free of charge, to the Treasurer of the Society.

As regards communications to the Journal, preference will be given to original matter from Palestine itself, as well as to unedited records of pilgrimages, and notes from works on Palestine that are little known or not easily accessible. The secondary matter will consist of memoirs on topography, natural history, ethnography, statistics, numismatics, and inscriptions.

Great stress is laid on the effort to make the Journal scientific rather than popular, and the chief aim of the Society is to obtain for means the support of a German expedition to Palestine. Members are requested to use their best efforts to obtain subscribers.

A short note draws attention to the great importance of a correct transliteration of modern Arabic names for the use of those who do not know that language, and a list of equivalents for Arabic letters is given.

Herr Schick contributes a paper on some recently-discovered graves near Jerusalem and on the ruins at the north-west angle of the city.

1. A little below the aqueduct from Solomon's pools, on the slope of the Hill of Evil Counsel, and about 335 metres south-west of the modern Aceldama, a tomb was discovered which presents some peculiarities. A flight of nine broad steps leads down to a chamber, the walls and vaulting of which are of masonry. In the face of the chamber there is an opening 0·54 m. wide and 0·61 m. high, closed by a stone slab or plug kept in position by a stone roller 1·10 m. long and 0·70 m. diameter. From the opening two steps lead down to the floor of the tomb chamber, which is rock-hewn and contains 9 kokim.

2. About 200 m. north of this grave is another, hewn out of the rock

which appears never to have been completed. The arrangement of the kokim, as shown in the plan and section, is somewhat peculiar.

3. Another tomb at Khirbet Sabha, near the aqueduct from Solomon's pools, before reaching Sur Baher, is of somewhat novel construction. Nine steps lead down to a vaulted chamber of masonry, whence a small opening provided with a stone door gives access to the tomb chamber. On either side of the doorway is a "kok" in masonry; on the west side are eight kokim in two tiers of four each, also of masonry; on the east are eight masonry kokim in two tiers, and behind these five kokim cut out of the rock; on the north side two masonry, and behind them four rock-hewn kokim.

A somewhat similar arrangement of masonry kokim is to be found in the so-called tomb of St. John in Samaria.

Herr Schick, in another paper on Ancient Remains in the North-West City Wall of Jerusalem, describes traces of an older wall than the present, and shows that the existing city wall, at several points, is built within the older one. He then argues that the third wall of ancient Jerusalem followed the course of these remains, and supports his argument by the fact, pointed out by Consul Rosen, that beyond this limit the red virgin soil is found. An interesting description is given of the recent discoveries at Goliath's Castle, of the form of the ditch in front of the city wall, and the various ruins and fragments of masonry which have been uncovered in this locality. Herr Schick is of opinion that the Tower Psephinus stood on the ground now occupied by a small mosque, and he ascribes some portions of Goliath's Castle to a period as early as that of the kings of Judah. The paper is illustrated by plans and sections, and draws attention to some points not hitherto noticed.

The first number of the Journal closes with a very valuable article by Professor Socin on recent Palestine literature, which is almost exhaustive of the subject and of the greatest use for purposes of reference.

It is needless to say that we wish every success to the new Society, and that we shall send them all our publications. The Fund, indeed, has become a subscribing member. Should any of our subscribers wish to join the German Association, their names will be received by the Secretary at Charing Cross, or may be sent direct to Herr Baedeker, Leipzig.